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Korea
Housing Finance System

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CURRENCY EQUIVALENTS

(As of November 1, 1985)

Currency Unit	=	Won (W)
W 1	=	$0.00112
$1.00	=	W 890 /a

FISCAL YEAR

January 1 to December 31

WEIGHTS AND MEASURES

pyong (py) = 3.307 sq m or 35.586 sq ft

ABBREVIATIONS AND ACRONYMS

CNB	-	Citizens National Bank
CPI	-	Consumer Price Index
EPB	-	Economic Planning Bureau
GNP	-	Gross National Product
GPM	-	Graduated Payment Mortgage
KHB	-	Korea Housing Bank
KNHC	-	Korea National Housing Corporation
KRIHS	-	Korea Research Institute for Human Settlements
LTV	-	Loan-to-Value
MOC	-	Ministry of Construction
MOF	-	Ministry of Finance
MOHA	-	Ministry of Home Affairs
NACF	-	National Agriculture Cooperative Federation
NHCL	-	National Housing Construction Loan
NHF	-	National Housing Fund
OECD	-	Organization for Economic Cooperation and Development
SIFCs	-	Short-Term Investment and Finance Companies
WAFD	-	Worker's Asset Formation Deposit

/a In this report "$" refers to US dollars.

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HOUSING FINANCE SYSTEM

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EXECUTIVE SUMMARY

1. Over the past 20 years, the Korean population has experienced a twenty-fold increase in incomes, and the prospects for continued economic growth are good. As per capita GNP grew from less than $100 in 1960 to $2,000 today, Korea was transformed from a rural society, where only 38% lived in cities, to the most urbanized country in East Asia with 71% in cities today. Although the rate of urbanization has slowed, rapid household formation will continue because of the young age structure of the Korean population. The combination of growing incomes and high rates of household formation in the context of extremely crowded housing conditions will produce continued strong demand for urban services, especially housing. Despite significant improvements in recent years in the quality and average size of housing units, the relative and absolute shortage of units is acute and growing worse. The housing finance system which was unable to serve a significant proportion of home buyers in the past will be even more inadequate in the future.

2. As part of the redirection of Government's economic management strategy toward a more indirect, regulatory role, Korea has undertaken to liberalize the financial system which is widely considered to be inadequate to serve the country's large and diversified economy. In addition to the scarcity of land for urban development, largely a function of geography, the shortage of finance is an acknowledged bottleneck in the housing sector. Although the institutions providing housing finance have been operated on a sound basis, the still low level of financial intermediation in the housing sector limits the ability of the present system to respond to the changing economic environment. The purpose of this study is to describe the housing finance system in Korea, identify its problems and to suggest measures which should be taken to assure its continued viability and to enhance its contribution to the development of housing and the economy.

The Housing Finance System in Korea

3. The formal housing finance system is underdeveloped compared to the size of the Korean housing market, that of the entire financial system and the potential demand for financial services. Since the creation of the system in 1967, only about 7% of the value of all new houses, or about 15% of the number of units constructed, were financed by mortgage loans. Although the total system has expanded rapidly, making loans for 22% of the value, or 70% of the number of new units in 1983, the average loan covered only about one-third of the value of the unit purchased. Furthermore, when transactions involving existing units are included in this calculation, less than 10% of the value of housing sold in 1983 was financed from the formal system.

4. The balance of funds required for purchasing housing is financed from personal savings, gifts, informal borrowing (including the curb market),

and the sale of a former home or other assets. Both the costs of informal loans and the opportunity cost of using one's own funds have been considerably higher than the interest rate carried by a formal housing loan.

5. The formal housing finance system is composed of two principal publicly-owned institutions, the Korea Housing Bank (KHB) and the National Housing Fund (NHF), which together provided 88% of all housing loans made in the past four years. The KHB was established in 1967 to increase the amount of housing financing available and to improve access to ownership for first-time buyers. The NHF was established in 1981 as a separate entity, although it had existed previously as an account within KHB. Although its general mandate overlaps with that of KHB, the NHF was created to specifically assist lower-income households to become owners and it was to rely primarily upon government sources rather than deposits for its funding.

6. Mobilization of resources by the two institutions is markedly different. The KHB raises 95% of its resources from voluntary deposits by households. The NHF receives approximately 75% of its resources through tax-like instruments earmarked for housing lending. The majority of these are compulsory-purchase bonds with long maturities and very low interest rates. The NHF also raises about 15% of its resources from deposits made by households who join contractual saving schemes to increase their chances of obtaining a housing loan.

7. At present, KHB's and NHF's lending activities are very similar despite the different focus assigned to each. They provide almost identical loans for units of the same approximate size and value. Over 90% of mortgages advanced by both institutions are for twenty years and were at the same rate of interest, 10.0%, from 1982 to 1984 when KHB's was raised to 11.4%. Both institutions give priority to first-time buyers and favor new over existing units, although KHB finances a limited number of used units up to five years old. The maximum size of eligible unit is similar for NHF and KHB and the actual distribution of sizes of units financed is almost identical. Since neither institution has income criteria for eligibility nor verifies the income of borrowers, it is not possible to directly assess the income groups being served. However, a 1982 sample survey of KHB borrowers indicates a middle- to upper-income clientele, which may also be true for NHF, since the size and type of units are similar. Knowing more about this question is essential to future policy-making. The KHB, NHF and the activities of other institutions making mortgage loans are examined in detail in Chapter IV of this report.

Constraints on the Housing Finance System

8. Mortgage lending has remained small largely because of factors external to the housing finance system. In the broader context, Government policies favoring administered interest rates and directed credit have restrained the growth of the regulated financial system. An undifferentiated term structure of interest rates has been unfavorable to a long-term lending institution like KHB, which could not compete for savings on a price basis because its deposit rates were kept identical to those of other banks and which could not charge more for its long-term loans. In addition, much

domestic credit has been directed to specific priority sectors, as defined by government, with only a small portion permitted to flow to housing.

9. The small supply of formal housing finance has resulted in: (a) a reduced output of housing, (b) a production bias toward larger units and wealthier home buyers, and (c) a higher total cost of housing finance for most buyers. Since housing has been essentially cash-financed in Korea, the number of households who could afford to buy has been smaller than it would have been had long-term financing been available. The shortage of financing also biased the housing market in favor of wealthier and older clients with substantial accumulated savings. These buyers preferred, and were able to afford, larger units than would have been built had financing been more widely available. This system has forced most buyers to rely, to some extent, on more expensive informal sources of financing. The shortage of mortgages has also led to creative and complex strategies for financing housing, such as the widespread practice of renting out rooms in return for large "chonsei" deposits from the tenants ("loans" to the landlord during the rental period). The very high rate of household mobility observed in Korea has facilitated access to housing despite the lack of formal financing. However, the practice of trading-up of housing in small increments until the desired size unit is obtained is predicated on rising prices. If housing prices stabilize, there may be more demand for housing loans as owners are less able to cash in their equity and move up one more step.

10. The chronic shortage of mortgage funds, in the context of controlled interest rates, has required other allocative measures to be employed. The specific measures chosen have had an important impact on the housing sector. In an effort to spread the available funds widely, the actual loan-to-value ratios are about one-third of the purchase price. This has made it difficult for new middle-income buyers, unable to raise funds for the balance of the purchase price, to enter the housing market. The number of lower-income buyers has been further reduced by the practice of lending almost exclusively for new units when lower-income buyers may only be able to afford older, less expensive dwellings. This practice has probably contributed to accelerating the depreciation of the older stock. One positive measure, in terms of resource mobilization for the system, is the priority given in the various savings schemes to those who have saved for a long time and who have accumulated more savings.

11. In an environment of fully regulated formal interest rates, KHB has used a variety of non-price incentives to mobilize resources. First, it has developed an extensive branch network (149 branches in 1984) to take advantage of the fact that it is the only bank besides Citizens National Bank (CNB) directly serving the household sector. In addition, the requirement that the buyer of a controlled-price unit subscribe to an NHF or KHB savings scheme has provided a significant non-price incentive for savers. Finally, KHB has also been able to attract considerable deposits through its only market-priced savings scheme, which gives savers a large interest subsidy from the Government that more than doubles the return over the actual interest paid by KHB. These various schemes and the outlook for the future are discussed in detail in Chapter IV.

12. The contrasting roles, within overlapping mandates, given to KHB and NHF recognize the need to differentiate policies and even institutions on the basis of the income groups to be served. However, in practice, the programs do not appear to have succeeded in reaching a different clientele. This report supports the basic division of responsibilities, as assigned by the Government, and suggests some specific policies and procedures which will allow the market-based system to expand in response to buyers' ability and willingness to pay for housing finance. At the same time, it is possible to increase the likelihood that social housing programs reach their intended beneficiaries by limiting NHF operations to the original mandate of providing finance to lower-income households.

Rationale for Changes in the Housing Finance System

13. Changes or improvements in the housing finance system are needed because of: (a) the expected impact of the ongoing financial liberalization, (b) the weak record of the system in stimulating the housing sector and (c) the opportunity for financial reform to develop more effective public policy tools in the housing sector. In recent years, the profitability of KHB has been very weak because of interest rate controls, and the process of liberalizing the financial sector could make the situation worse. In fact, the increase in interest rates to 12% for deposits over six months, introduced in April 1985, leaves KHB's marginal cost of funds higher than its lending rate -- clearly an untenable position if KHB is to expand. Increasing competition in the financial sector will raise the efficiency of financial intermediation, which can be extended to housing finance if KHB is free to charge sufficiently high interest rates on its loans to cover the costs of competitively mobilizing funds. Mortgages priced closer to the market will also reinforce the integration of financial markets and reduce interest in real estate by investors whose primary motive is to obtain a subsidized loan. The growth of the formal housing finance system is also inextricably linked with another financial sector trend - a reduction in the size of the curb market. The financial institutions serving the housing sector are in the best position to attract new household deposits. A smaller curb market will also affect the demand for KHB funds as borrowers turn to other sources of finance for home purchase.

14. The Government's shift in economic management strategy, in general, and the movement toward liberalization of the financial system, in particular, can be extended to housing finance with a high pay-off. The still small size of the housing finance system relative to the level of investment in the sector means that the allocative efficiency and reduced transaction costs which flow from a modern financial system could benefit housing to a much greater extent. Changes in the system would also bring additional buyers into the market, which is now limited to those able to afford a down payment of two-thirds of the value of the unit purchased. Measures to expand the formal market mortgage system would also allow the Government to reduce the level of public resources devoted to housing finance. At the same time, a deliberate and explicit targetting of public resources to lower-income families would probably increase the benefits to this group by reducing leakages to those who can afford to pay market terms. In the past, the value of NHF mortgages to the lower-income groups was limited because the loans were small and the terms undifferentiated from all other borrowers.

15. Reform of the housing finance system offers an opportunity for the Government to improve the performance of the housing sector. At a general level, the effectiveness of public expenditure should be increased by distinguishing more clearly between efficiency and equity goals in housing policy and focussing direct public spending on the latter. The controls and rationing devices required for a subsidized program would become unnecessary and cost savings should be possible. It is likely that somewhat more resources would flow to the housing sector as a result of expanding the unsubsidized mortgage system without any increase in public expenditures. By providing more market-priced housing finance to middle-income buyers, the output of new units should be less skewed to the larger sizes favored by upper-income households. For the social programs, the better terms offered for the smallest units, along with a reduced maximum eligible size, will also contribute to the more efficient use of resources in the sector. An expanded financing system may also act to stabilize demand compared to the present "cash" system, since the decision to buy will not be so dependent on upper-income savings, market fluctuations in asset values or other residual events.

Proposed Directions

16. Housing finance is not only a portion of the overall financial system but must function in an environment which is also shaped by housing policies. The foundations for the present housing policy in Korea were established almost fifteen years ago when conditions in the economy, in finance and in the housing sector were considerably different from what they are today. It is therefore time for a systematic review of policies and institutional arrangements in the sector. Output of new houses in recent times has fallen considerably short of both Government targets and the growth in urban households. Therefore, an increase in the output of new units is essential for any quantitative improvement in housing conditions. Toward this end, the Government should review the rationale for and the extent of direct public sector involvement in housing production. It may help to clearly differentiate the role of public sector agencies from their private sector counterparts. In particular, sector policies should be examined for any disincentives which may be constraining the full participation and normal activities of the private sector. This report suggests that eliminating the present price controls on privately developed apartments is an example of how sector performance might be improved.

17. Before the recommendations of this study can be implemented, it is necessary that the policymakers clarify the role of the Government in the housing sector in general and the housing finance system in particular. Housing policies should be cast in a broader framework than in the past to take into account: (a) policy objectives other than ownership; (b) existing units as an important source of lower-cost housing; (c) upgrading and renovation as an economically efficient way to improve housing conditions; and (d) the varied needs of different income groups.

18. The current separation of the housing finance institution for lower-income buyers, NHF, from the KHB should be maintained as it provides an opportunity to assign distinct objectives to each institution. As the market system expands to provide financing to most Koreans, NHF's clientele should be

restricted to assure that public assistance is going to the beneficiaries designated by the Government. An upper limit of the 50th percentile of the urban income distribution is suggested at this time.

19. The type of mortgages offered by NHF should also reflect the policy objective of serving lower-income households. If the interest rate on NHF's adjustable mortgages is set, as recommended, at a level which covers the financial cost of funds as a minimum, it is likely that NHF will be able to lend at lower rates than other institutions because of its below-market sources of funds. It is also recommended that the bias in favor of financing small units be increased by establishing a maximum size equal to the average of the national stock, which presently is about 20 py, as opposed to the current maximum of 25.7 py, and that the loan-to-value ratio be "tapered" so that buyers of smaller units can obtain relatively larger loans, if they wish, thus reducing the need for large down payments. In addition to the present practice of lending through public sector builders for new houses, NHF should offer loans for existing dwellings and for new privately developed units which meet the physical criteria set for new units as a way to increase the pool of available housing for lower-income households.

20. The main sources of funding presently used for NHF are appropriate and not likely to change quickly, save one. Type II Housing Bonds (see para. 2.29) which are related to the sale of controlled-price apartments will not serve any purpose if the recommendation to eliminate such controls is adopted. If the market-based system is allowed to expand, the overall program proposed can be carried out without major new sources of revenue for NHF.

21. The fundamental question for the market housing finance system is whether to attempt to sustain a segregated system or whether to integrate housing finance within a liberalized financial sector. The latter course is recommended because it can bring important efficiency gains to the entire economy and to the housing sector, and because it will enable the institutions to be more responsive to the quantity and type of finance wanted by home buyers. Integration, first of all, implies that interest rates for housing finance be deregulated along with the rest of the financial system. The recent increase in deposit rates, without a corresponding increase for lending, is untenable from KHB's point of view. Thus, it is suggested that KHB be allowed to price its loans at the maximum of the interest rate band during a transition period. Since one of the main objectives of reforming the housing finance system is to allow the system to respond to the demand for more and larger mortgages, even charging the maximum regulated rates during the transition period will result in the system being able to hold its present share of savings, and perhaps even increase it, if household savings rise as projected by economic planners. If the type of integration for housing finance proposed in this report were adopted, the market for mortgages should be profitable enough to attract other lenders, including the commercial banks. Although their share is very small, one commercial bank, one credit union and several insurance companies and pension funds are already providing mortgage loans. However, their participation is likely to remain small unless there is some facility for financial institutions to adjust the maturity of their assets such as a secondary market for long-term mortgages. Although this is not an urgent matter in Korea so long as KHB is the major lender, it

would be desirable to initiate preparations because it will take some time to resolve the technical issues.

22. If KHB is to have the volume of funds necessary to make a larger impact on the housing sector, it will need to pay careful attention to its mobilization programs during the transition period. Higher deposit rates will be the key to mobilization, but other traditional programs, such as the contractual saving schemes, will remain important as long as interest rates are not the sole rationing mechanism in the financial system. For future expansion, KHB should explore some non-deposit sources such as issuing bonds to institutional investors. If these are offered at market rates, they could be as significant a source of funds for housing finance as they have become in other integrated financial systems. Analysis indicates that the demand for mortgages will not be explosive, instead it is expected to be a multiple of two to about four times the present size over the next five years, a growth not greatly superior to that of the entire financial system. Allowing market forces to play an increasing role in setting the price for mortgages will act as an automatic restraint on excessive shifts of financial resources to this sector.

23. The KHB and its customers could also benefit from changes to the single mortgage instrument now being used. First, for households with enough debt-carrying capacity, higher loan-to-value ratios should be offered at prices which reflect the inherent risk associated with them. Since the existing loans are adjustable rate mortgages, that feature should be fully exercised with as little time lag as possible, and the instrument should indicate to the borrower the basis for adjustment and any limitations there may be, such as maximum allowable change within a one year period. KHB should lend for houses of all ages for the same reasons mentioned for NHF and should offer, as options, a number of features proposed in this report.

The Impact of the Proposed Changes

24. The impact of implementing the recommendations of this study would be to expand the role and the size of the formal housing finance system in the housing sector, to fund a broader range of investments in housing and to target services more effectively to an increasingly differentiated clientele. The expanded size of the mortgage finance system will be necessary to compensate for an expected decline in informal sources, due to financial sector reform, and will be facilitated by the application of market pricing to mortgage loans. When the housing finance system offers more flexibility in the types of loans, and an increase in the range of investments eligible for mortgage financing, the impact of the financing system on the improvement in housing conditions would be much greater than at present. The availability of larger loans requiring lower down payments and the new features mentioned above should also enable a greater proportion of medium- and low-income borrowers to be served by the housing finance system.

25. Since the market side of housing finance is expected to expand, KHB will need to play the leading role in the medium-term. There are risks in expanding both the instruments and the activities financed by KHB at the same time. However, if KHB is free to take decisions on mobilization and lending

in response to the demand for mortgage finance, it will assure the continued growth and financial viability of the institution. A clear and unambiguous goal to expand market-based financing for housing, assigned to KHB, will lead to better designed mortgage instruments and improved market efficiency.

26. The NHF's effectiveness would be increased by having a more focussed mandate. Its management would be able to serve a well-defined and verifiable clientele. To some borrowers, NHF should be able to provide greater assistance than in the past in the form of larger loans and relatively lower rates than those for KHB mortgages. The major implication for NHF would be to increase its impact on lower-income groups and small-unit production without any increase in the total volume of funds needed and loaned by the institution.

27. From the viewpoint of home buyers, there will be an increased availability of formal household finance, which will result in a lower average cost of borrowing for those households presently relying, to some extent, on informal markets for finance, where interest rates are typically higher and maturities much shorter. More flexibility in the type and purpose of loans available would also mean that more households can improve their housing situation through the formal financing system. If, as expected, "chonsei" declines, renters will also have the opportunity to make better use of their savings and have more alternatives in their choice of rental accommodation.

28. The proposed changes to the housing finance system are consistent with the Government's objectives to strengthen the nontraded sectors as a "second engine of growth" and to bring the benefits of more efficient financial intermediation to more of the economy by liberalizing the financial system. These benefits would be primarily realized by more of the financing for housing flowing through the formal system rather than through the informal credit markets, with lower overall intermediation costs compared to a system of transactions among private parties. The current volume of the informal financial claims related to housing suggests an ample opportunity to channel these resources through the formal system without displacing funds from other sectors. The demand for mortgage finance will undoubtedly increase, but the rate of growth will be automatically restrained by the rising price required to mobilize resources from savers. At the same time, improved allocation of savings between sectors and a shift in the household savings portfolio toward more financial instruments are expected. Expanded formal financing would also make a reduction in direct Government intervention in the housing sector possible.

KOREA

HOUSING FINANCE SYSTEM

PART ONE: OVERVIEW AND IDENTIFICATION OF PROBLEMS IN THE HOUSING FINANCE SYSTEM

I. INTRODUCTION

1.01 This study is about the housing finance system in Korea, how it has worked, the problems it faces and what measures should be taken to assure that it makes a strong positive contribution to Korea's development in the future. The "housing finance system" refers to the network of financial institutions which provide loans to households for house purchase or improvement. Korea's rising incomes, expanding domestic markets and high urbanization levels are responsible for the increased role of the housing sector and its financing in national economic management. A review of the housing finance system at this time has been prompted by the Korean Government's adoption of a more decentralized economic management strategy and, in particular, by the ongoing efforts begun in the early 1980s to "liberalize" the financial system, which includes the housing finance system.

1.02 The financial liberalization in progress has two aims: first, to stimulate private savings by providing better financial savings vehicles than in earlier years, and second, to improve the efficiency of investment so as to generate more growth with the same savings level, which implies more dynamic, better informed, and better integrated financial markets. Liberalization in this context includes the progressive decontrol of interest rates, the privatization of all deposit banks (excluding for the moment the specialized banks, such as Citizens National Bank and Korea Housing Bank), an increased role for foreign banks, and the deregulation of the banking system by progressive elimination of detailed government intervention into daily banking operations. This movement also includes the encouragement of innovations in banking management together with the development of accounting, credit evaluation, and financial service firms, which are crucial to the growth and efficiency of financial market operations. Banking liberalization in deposit mobilization as well as in lending operations raises important questions for the housing finance system which has so far been highly specialized, closely regulated and kept rather isolated from other banking activities.

1.03 The foundations of Korea's housing policies date to the early 1970s. The Korean economy, the structure of society, and, not surprisingly, the housing markets have all changed substantially since that time. The problems associated with building an industrial economy, including start-up of new industries and development of basic infrastructure, have been faced and successfully tackled in Korea. At the present stage of development, the Government has been rethinking its role in the economy and is moving away from direct intervention toward a more indirect regulatory posture. Specifically, questions are being raised about the effectiveness of direct government

intervention in sectors such as housing. Many of the ongoing reforms, such as that of the financial system, will have a major impact on the housing market. The gradual evolution of the role of Government to "rule maker" rather than active "player" in the economy and the implied greater reliance on market forces will require adjustments in policies for and in institutions serving the housing sector.

1.04 This report, which attempts to address these changing attitudes toward housing and its financing, is organized into two parts comprising seven chapters. Part One provides an overview of the housing sector and housing finance system. This part includes, in addition to this introductory chapter, three chapters which discuss housing conditions and policies in Korea, the housing finance system and the individual housing finance institutions. Problems related to the housing finance system are identified and analyzed. Part Two provides recommendations for reform of the housing finance system in light of the policy toward financial liberalization currently under way. This section includes three chapters which deal with housing policy, the market-based housing finance system and the financing of housing for lower-income buyers.

II. HOUSING CONDITIONS AND POLICIES

A. Housing Conditions

The Demand for Housing

2.01 Korea now has the largest share of population living in urban areas among the developing countries in Asia, other than Singapore, and is already at the urbanization level of many developed nations. As early as 1970 the rural population growth leveled off and started declining in absolute terms. At present about 70% of the Korean population lives in urban areas,[1/] whereas only fifteen years ago the share was only about 40%. At present, cities are growing at about 5.0% p.a., much faster than the 1.6% p.a. rate for the total population. Korea also has a number of cities which are large by international standards. Seoul City proper is expected to reach 10 million inhabitants in 1986, Busan about 3.5 million, and three other cities over 1 million.

2.02 The speed with which urbanization occurred and the resulting large size of Korean cities have both served to exacerbate the housing situation. Rural housing markets have been in quantitative balance and, in some instances, have even had surplus dwellings for over a decade. On the other hand, the cities, especially the larger ones, have experienced extremely tight markets for all types of housing. The considerably different housing conditions among rural areas, small centers and large cities call for flexible policies to respond to varying local conditions.

1/ According to Ministry of Home Affairs (MOHA) and Economic Planning Bureau (EPB) data for 1983, 71.4% of Koreans lived in urban areas of more than 20,000 population and 64.4% lived in areas of more than 50,000 population.

2.03 The rate of household formation has been, and is expected to continue to be, far above the rate of population increase (see Table 2.1). This is due in large part to the young age structure of the Korean population, where the 45% under 20 years of age are forming new smaller households in large numbers. Table 2.1 shows that the average increase in households between 1980-85 has been about 320,000 per year and is expected to increase to about 360,000 households per year between 1985-90.

Table 2.1: POPULATION, HOUSEHOLDS, AVERAGE HOUSEHOLD SIZE, 1975-1990

Year	Population		Households			Average household size
	Number ('000)	Change* (%)	Number ('000)	Change* ('000)	Change* (%)	
1975	34,707	-	6,761	-	-	5.1
1980	37,936	1.53	7,969	242	3.3	4.7
1985	40,467	1.57	9,575	321	3.7	4.2
1990	43,594	1.50	11,372	359	3.5	3.8

Sources: EPB, Republic of Korea, Population and Housing Census, 1975, 1980, 1985 (prelim.) and mission estimates.

* Annual average for preceding five-year period.

2.04 Although the factors which determine the demand for housing services, such as household formation, personal incomes and household savings, have all been growing strongly in Korea for the past 20 years, effective demand for new housing has been dampened by high dwelling prices relative to incomes and the limited availability of formal housing finance. Most home-buyers must purchase their dwellings on a cash basis, relying on accumulated savings and high-cost informal sources of funds. Many families, especially young urban families in reasonably secure jobs, who could afford to buy if long-term financing were available, are forced to remain renters. The limited availability of finance and strong investment opportunities elsewhere in the economy have also inhibited the development of a healthy rental market, leaving both renters and the large share of owners, who rent out a portion of their homes, housed more poorly than might be expected for a country whose income has been growing as quickly as Korea's. Strong public sentiment that better housing is needed, along with the expected steady economic growth and continued urbanization, will place increasing pressure on housing markets in Korea in the future, which can be relieved, to some extent, by expanding and improving the housing finance system.

The Supply of Housing

2.05 Much has been done to improve the supply of housing since the devastation to the housing stock caused by the Korean War. The output of new units shows a generally upward trend since 1966 (see Table 2.2 and Figure 2.1), except for a rather sharp decline in output for three years after 1978. Housing construction has become a major economic activity, accounting for about 6% of GNP or about 20% of fixed capital formation in 1984.

Table 2.2: STOCK AND OUTPUT OF NEW DWELLINGS

Year	Existing stock of dwellings (a) (units)	New dwellings (b) (units)	Investment in Housing GNP (%)	Investment in Housing GDCF (c) (%)
1966	4,070,000	93,321	1.5	8
1967	4,100,000	94,568	1.9	9
1968	4,180,000	96,225	2.3	10
1969	4,280,000	104,545	3.0	10
1970	4,360,000	115,000	2.7	13
1971	4,430,000	130,000	3.4	11
1972	4,490,000	110,000	3.4	10
1973	4,590,000	142,560	2.9	16
1974	4,690,000	158,110	3.4	16
1975	4,734,000	179,951	4.5	17
1976	4,900,000	169,970	3.7	13
1977	5,100,000	203,545	4.4	17
1978	5,240,000	300,107	6.1	19
1979	5,420,000	251,000	4.9	17
1980	5,460,000	211,537	5.3	22
1981	5,580,000	149,837	4.1	18
1982	5,740,000	191,420	6.6	20
1983	5,896,000	225,990	5.2	23
1984	6,085,000	222,081	5.9	20
1985	6,274,000	227,000	n.a.	n.a.

Sources: (a) EPB, Republic of Korea, Population and Housing Census, 1970, 1975, 1980, 1985 (prelim.)

(b) KHB, Housing Finance Bi-Monthly Review, April 1985.

(c) Gross Domestic Capital Formation (at current prices).

FIGURE 2.1
Total and Private Output of New Dwellings, 1962-1984.

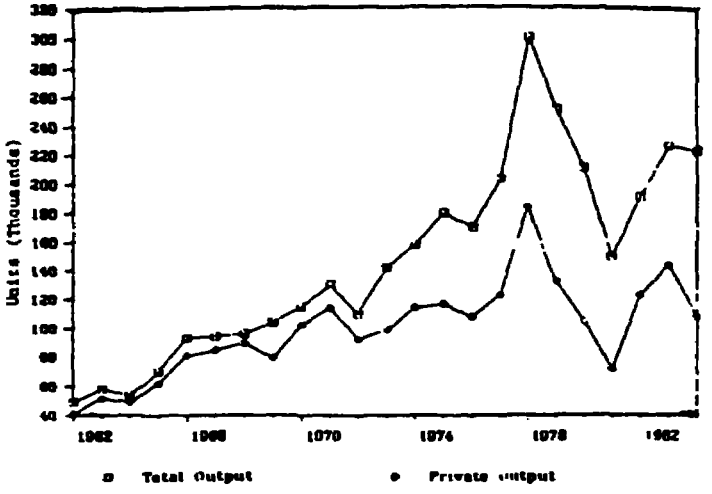


FIGURE 2.2
New Housing per 1,000 People, 1962-1983.

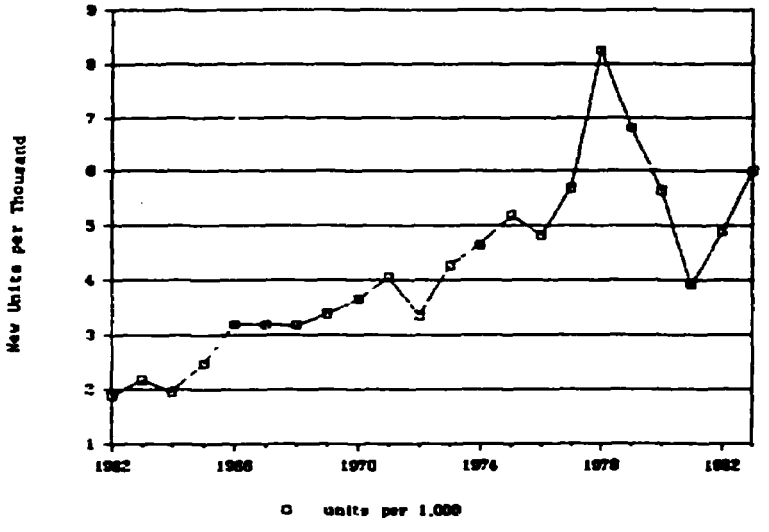
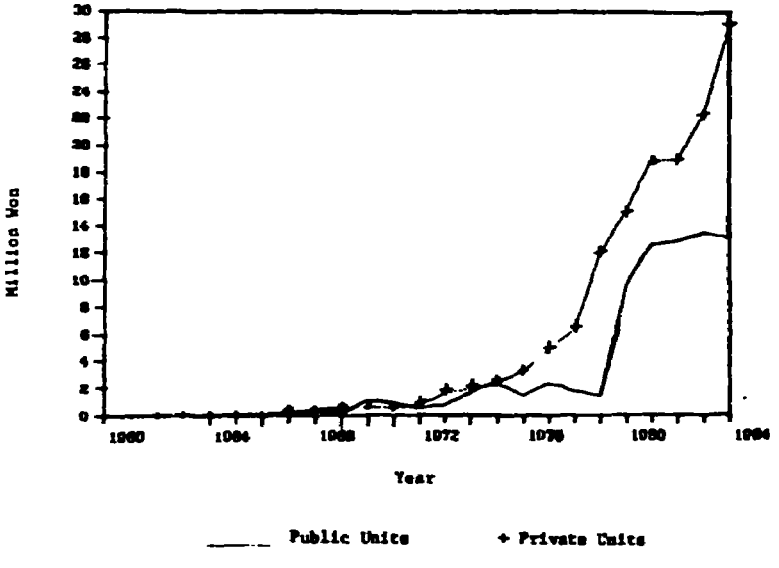


FIGURE 2.3
Average Value of New Public and Private Housing.



2.06 During the period 1970-80, the actual per capita consumption of housing services rose markedly, and there was a significant increase in the actual space available per person.[2/] In 1970, the average size unit in the stock was 13.8 py,[3/] yielding an average living space of 2.1 py per person. By 1975, the average had increased to 17.5 py and 2.4 py per person. At the time of the census in 1980, the average unit was 20.7 py with 2.9 py per person, a 40% increase in space per person in only ten years (see Table 2.3). A more detailed analysis [4/] undertaken for the Fifth Five-Year Plan (1982-86) identified that the increase in average house size has been partly due to the construction of larger size units in recent years and also to the renovation and upgrading of existing units, which have made a major contribution to increasing the residential floor space available. The upgrading of the existing stock, accounting for only about 20-25% of the investment made in new housing, contributed half as much new floor space as did the construction of new dwellings during the period 1970-75.

2.07 More space has not been the only improvement in Korean housing conditions since the Korean War -- by all standards the quality of housing has been steadily improving as well. In contrast to many other countries, the climate of Korea forces buyers to choose higher quality housing in the form of solid, weather-tight structures. Service standards are also high -- in 1980 83% of urban houses were served by piped water, 100% by electricity and 57% by telephones.

2/ Detailed analyses of Korean housing surveys have shown that in the late 1970s there was a greater preference for larger residential space over sole occupancy of a unit. Households with increased incomes were more likely to purchase or rent larger space than they were to search for a unit that they could occupy alone. These studies also show that the demand for more space is very sensitive to housing prices in Korea. The lack of mortgage financing has been one of the factors influencing the housing strategy followed by Korean households. See Follain, Lim and Renaud "The Economics of Residential Crowding in Developing Countries," Journal of Urban Economics (1984) as well as "Housing Crowding in Developing Countries and Willingness to Pay for Additional Space, the Case of Korea," Journal of Development Economics (1982).

3/ Pyong (py) is a Korean measure of area equivalent to 3.307 m^2.

4/ Raymond J. Struyk, Housing in Korea's Fifth Five-Year Plan: Possibilities and Constraints, The Urban Institute (1980).

Table 2.3: SIZE DISTRIBUTION OF HOUSING STOCK (%)

Unit size (py)	1970	1975	1980
Less than 10	32.7	19.6	10.8
10 to 19	51.1	54.1	51.0
20 to 29	12.0	18.4	25.4
30 to 39	2.6	4.7	6.9
More than 40	1.5	3.2	5.9
	100.0	100.0	100.0
Average size (py)	13.8	17.5	20.7

Source: EPB, Population and Housing Census, 1970, 1975, 1980.

2.08 In spite of these significant achievements, the average annual output has not managed to keep pace with the growth of new households. To illustrate, during the period 1980-85, the average annual output of about 200,000 new units fell significantly short of the average annual growth of new households estimated at about 320,000 per year. This situation appears even more difficult when demolitions of existing houses, which have averaged about one-third of new housing production over the same period, are considered, making the net addition to the housing stock less than one-half the number of new households. The inability of output to keep up with household formation has created a severe housing shortage. In other countries with milder climates, this situation would be expected to result in a proliferation of inadequately serviced slums and squatter areas. In Korea, however, where the harsh winter climate forces households to live in better quality housing, the housing shortage has led to extreme crowding in urban areas. Of a number of densely populated countries sampled, Korea has among the most crowded conditions, (see Table 2.4). The situation has continued to deteriorate from an average of 1.3 households per dwelling nationwide in 1970 to over 1.5 households per dwelling in 1980. Crowding is much worse in the rapidly growing urban areas than these nationwide figures would suggest, with Seoul averaging more than two households per dwelling. According to the latest census in 1980, only 30% of urban households occupied an entire unit, while 30% shared with one other family, 18% with two and 22% with three or more other households in a single unit. Homeowners also share their houses with renters in order to help finance the costs of ownership. The crowding conditions have severely affected the lower-income families, many of whom live in only one room.

2.09 A measure of the relative level of output of new units in Korea, compared to other countries which already have mature housing markets, is captured in the building rate (see Table 2.5 and Figure 2.2). On average, Korea produced 5.37 new units per thousand population between 1979 and 1983

which would rank it below many developed countries which already have comparable numbers of units and households. Also significant is the fact that despite a relatively high share of GNP going to housing in recent years, the number of units built has remained small as the average value grew quickly, especially of privately developed units (see Figure 2.3). This trend toward larger and higher-priced units is directly related to the nature of the housing finance system. The present system discriminates in favor of those who have their wealth in a form that can be used to make the required large down payment. Many families, who will be home buyers later in life, are denied the opportunity to borrow against their future income because the present financing system is so restricted. An expanded system would mean that households with presently lower incomes could enter the market. Although there is no direct measure of the supply elasticity of housing in Korea, economic analyses in other countries show a relatively inelastic response in the short-term but a high supply elasticity in the longer run. Policy objectives and instruments are often based on a time horizon which is too short to sustain long-term growth in the housing sector.

Table 2.4: MEASURES OF CROWDING IN SELECTED COUNTRIES

	1976 GNP per capita in US$	Households per dwelling unit	Persons per room	Percent with 3 or more persons/room	Housing data year
India	150	1.038	2.8	n.a.	1971
Pakistan	170	1.060	3.1	59.0	1960
Indonesia	240	1.019	1.6	24.2	1971
Egypt	280	1.215	1.6	15.5	1960
Thailand	380	1.010	n.a.	n.a.	1970
Philippines	410	n.a.	n.a.	30.1	1967
Morocco	540	1.264	2.1	34.4	1971
Colombia	630	1.410	n.a.	n.a.	1964
Turkey	791	n.a.	2.0	29.2	1965
Mexico	1,090	1.000	2.2	n.a.	1970
Brazil	1,140	1.062	1.0	4.9	1970
Korea, Rep.	1,606	1.329	2.0	26.8	1970
Poland	2,860	1.196	1.3	n.a.	1970
UK	4,020	1.048	0.6	0.1	1971
France	6,550	1.062	0.7	n.a.	1968
Japan	6,910	1.011	1.1	3.9	1968
Germany	7,380	1.062	0.7	n.a.	1972
US	7,890	1.000	0.6	0.	1970

Sources: United Nations, Human Settlements, Statistical Appendix, 1977; EPB, Republic of Korea, Population and Housing Census, 1970.

Table 2.5: BUILDING RATES IN VARIOUS COUNTRIES
(new units per thousand inhabitants - 1980)

Japan	10.8
Finland	9.7
Ireland	8.4
Norway	8.3
Netherlands	8.2
France	7.5
Switzerland	7.2
Canada	7.2
Austria	6.8
Sweden	6.2
Spain	6.2
West Germany	6.0
United States	5.5
Korea	5.4
Denmark	4.2
United Kingdom	3.8
Italy	3.7

Source: OECD, Comparative Housing Position in the Industrialized Countries, 1982.

2.10 The most widely quoted measure of housing conditions in Korea is the "supply ratio," which compares the number of households to the number of dwellings. While the available measures of space per person have been increasing the supply ratio has declined rather significantly since the mid-1960s (Table 2.6). However, this aggregate measure of housing conditions does not show a complete picture because each unit is treated identically and no distribution of units among households is presented. In fact, the rigid system of building standards and zoning regulations may have made the situation seem worse by having units, which are built for and used by more than one household, counted as a single house in the Census. Changes to these regulations in late 1984 may, over time, bring about a recalculation of the supply ratio making it more consistent with other housing indicators. Although the decline in the supply ratio should not be used as the sole or even the principal measure of the housing problem, as it has tended to be in official plans, it is indicative of the trend toward even greater sharing of units.

Table 2.6: THE SUPPLY RATIO

Year	Households (A)	Dwellings (B)	Supply ratio (B ÷ A)
1966	4,812,000	4,070,000	0.85
1970	5,793,000	4,360,000	0.74
1975	6,702,000	4,734,000	0.71
1980	7,849,000	5,460,000	0.69
1985	9,575,000	6,274,000	0.66

Source: EPB, Republic of Korea, Population and Housing Census, 1970, 1975, 1980, 1985 (prelim.).

2.11 In Korea, the term "public sector" refers to housing developed by the Korea National Housing Corporation (KNHC) or local governments but built by private contractors. Almost all public housing is sold to individual owners with hardly any rented. Public sector institutions originally became involved in housing supply to introduce sizes (smaller) and types (apartments) not being provided by the private sector. From this initial limited role, the public sector has become a major supplier of new units, especially smaller and less expensive ones, actually exceeding the output of the private sector in three of the last five years. In contrast, the annual production of private sector housing has been more or less constant since the early 1970s (see Table 2.7). This relative shift toward the public sector has proceeded despite Government policy statements in favor of promoting a healthy and growing private sector housing industry. In part, the shift has occurred because government agencies are less affected by changes in the overall economic environment, and, more importantly because the private sector faces a number of constraints which have limited its ability to profitably compete with the public sector. Most obvious among these are administrative controls on the prices of the most popular types of new units, more difficult access to serviced land, different tax treatment than for the public sector on land acquisition, construction activities and buyers costs, and the much more limited formal financing available for privately developed housing. With a view to increasing the efficiency of supplying housing, it seems appropriate for the Government to review the entire range of housing sector policies to eliminate any unintended discriminatory effects which may be restraining private sector output.

Table 2.7: PUBLIC AND PRIVATE SHARES IN NEW HOUSING CONSTRUCTION (numbers of units)

Year	Public	(%)	Private	(%)	Total
1965	7,953	(11)	62,512	(89)	70,465
1970	12,382	(11)	102,618	(89)	115,000
1975	62,700	(35)	117,251	(65)	179,951
1980	106,187	(50)	105,350	(50)	211,537
1981	77,633	(52)	72,204	(48)	149,837
1982	68,209	(36)	123,211	(64)	191,420
1983	82,071	(36)	143,919	(64)	225,990
1984	114,081	(51)	108,000	(49)	222,081
1985	132,000	(58)	95,000	(42)	227,000

Source: KHB, Housing Finance Bi-monthly Review, April 1985, updated by MOC for 1985.

Household Mobility

2.12 In most nations the number of new units built and sold is small compared to the housing stock and to the number of existing units traded during a year. The volume of housing transactions relative to new unit sales is probably even greater in Korea because of the high mobility reported. According to a recent Korea Research Institute for Human Settlements (KRIHS) study, Koreans are very mobile, with owner-occupiers spending an average of only 3.7 years in a single dwelling. This compares with about six years in the USA, almost ten years in most of Western Europe and 17 years in the Philippines.[5/] For Korea this implies that, on average, 15% of the stock of housing changes ownership each year, which is about four times the number of new units constructed. Much of this movement is within the same city rather than from rural to urban areas. For the group of larger cities, 91% of the moves are within the same city.

2.13 According to the 1982 KRIHS survey, the motive for moving is clearly to improve one's housing conditions as opposed to employment relocation, for example. There appears to be a small share of lateral moves (about 30%), which is a very specific feature of the Korean market not common elsewhere. Improvements in housing status include moving to larger premises, with more facilities and better neighborhood amenities, and also in moving to more secure tenure forms. The high rate of mobility observed in Korea has facilitated access to housing, despite the shortage of formal financing, by allowing

5/ For renters in Korea, the average time spent in a dwelling varies from one year eight months to two years one month.

people to build up equity by buying and selling units in those parts of the housing market where prices were escalating. However, the practice of trading-up of housing in small increments until the desired size unit is obtained is predicated on rising prices. If housing prices stabilize, there may be more demand for housing loans as owners are less able to cash in their equity and move up one more step.

Housing Prices and Access to Ownership

2.14 Not surprisingly, given the crowded conditions and relatively low output of new units in Korea, upward pressure on prices has been strong. Although there are problems with the comparability of data from different periods, the Ministry of Construction (MOC) has prepared a price series for housing for the period 1965 through 1980 including comparisons with urban wages and the consumer price index (CPI) (see Table 2.8). Over this entire period, the statistics show housing rising about 2.7% a year faster than urban wages and twice as fast as the CPI. KRIHS has prepared a more disaggregated analysis of housing prices for the period 1976-82, which shows how housing prices have increased relative to different income levels. Even though incomes rose significantly in the 1976-82 period, the cost of housing has been rising at a faster rate for households below the 50th percentile of the income distribution. Therefore, access to ownership has become more difficult for the lower-income families. Despite the recent slowdown in the rise of housing prices and lower nominal interest rates,[6/] a house purchase is still out of reach for most low- and middle-income families until relatively late in life.

Table 2.8: CHANGES IN HOUSING PRICES AND INCOMES, 1965-1980
(1965 = 100)

Year	Housing prices	Urban wages	CPI
1965	100	100	100
1970	379	339	178
1975	1,108	763	364
1980	3,936	2,847	805
Average 1965-80 Percent per year	27.7%	25.0%	14.9%

Source: MOC.

6/ House prices leveled off in 1981 and 1982, and interest rates on housing loans decreased from a maximum of 19.5% in 1980 to 10% in 1983.

2.15 Based on a KHB survey, the average age of household heads who received housing loans was about 39 years, attributable in large part to the long period of time required to accumulate the amount of wealth needed for a down payment. The relatively high mean age of borrowers has important financial implications for both the borrower and the lender. In Korea, a significant proportion of workers presently retire before their mid-50s. Thus KHB borrowers who received a 20-year housing loan have borrowed at the upper end of their working life, and repayments will be required into their retirement years. Improvements in the availability of housing finance would permit ownership sooner for most households.

2.16 Although various surveys have found the Korean preference for home ownership to be very strong, the portion of Korean households nationwide who are owner-occupants has been falling from more than 80% in the 1960s to about 60% in 1980. In the cities only 45% are owner-occupants and one-third of those (i.e., 15% of all households) rent out part of their units to other families. Thus, in urban areas about 55% of households are renters, and an additional 15% are landlords with tenants in the same house where they live. The proportion of urban dwellers in Korea who are renters is now over one-half and is not likely to decline for the foreseeable future, in part due to the financial difficulty associated with purchasing because of the large cash down payments and limited availability of housing finance.

Affordability Indicators

2.17 It is possible to examine the "affordability" of housing in Korea using official income data, prevailing housing prices, formal and informal interest rates and assuming that 25% to 30% of incomes are devoted to housing. The results can be expressed as the number of py of floor space that a household of a particular income level could purchase under the given prices and financing terms (see Table 2.9).

2.18 In Table 2.9, Example 1 represents what the typical borrower from a "social housing" lender can buy. It assumes a 50% loan and a costless down payment of 50% to purchase a unit at the controlled price of Won 1.08 million per py. The smallest public unit constructed in 1984 was 13 py which, under this scenario, could be purchased by a household at about the 20th percentile of the urban income distribution. Of course, most poor households would have trouble assembling a 50% down payment cost free, and Example 2 shows what happens if they must borrow 20% of the housing price in the informal credit markets. The minimum size unit becomes affordable only at about the 54th percentile, and an average size unit of 20 py only at about the 80th percentile.

Table 2.9: AFFORDABILITY OF KOREAN HOUSING

Example	1	2	3	4	5	6
Formal borrowing	50%	50%	35%	35%	35%	0%
Informal borrowing	0%	20%	0%	15%	25%	40%
Savings	50%	30%	65%	50%	40%	60%
Total	100%	100%	100%	100%	100%	100%
Interest of formal loan	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%
Interest of informal loan	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%
Housing price (mil.won/py)	1.08	1.08	1.50	1.50	1.50	1.50
Share of income for housing	25%	30%	30%	30%	30%	30%
Affordability - py by income decile						
I	9.4	5.8	11.6	5.8	6.2	2.8
II	11.9	7.4	14.7	7.3	6.6	3.6
III	14.3	8.8	17.6	8.8	7.8	4.3
IV	16.7	10.3	20.6	10.2	9.2	5.0
V	18.8	11.6	23.2	11.6	10.3	5.7
VI	21.3	13.2	26.3	13.1	11.7	6.4
VII	24.8	15.4	30.7	15.3	13.7	7.5
VIII	29.2	18.1	36.1	17.9	16.1	8.8
IX	36.2	22.4	44.7	22.3	19.9	10.9
X	56.6	35.0	69.9	34.8	31.2	17.9

Sources: All data are for end-1984. Maturity of formal loans is taken as the actual for KHB and NHF, and for informal loans the assumption is a three-year loan, rolled-over once, for a six-year total term. The curb market interest rate is based on regular government surveys of the informal credit markets as reported to the Bank mission.

2.19 In a similar fashion, Example 3 represents the typical borrower from a housing finance institution, who receives the average loan for 35% of the house value and has saved the remainder. The smallest private unit, about 20 py, becomes "affordable" at the 35th percentile and even a middle income household at the 50th percentile can buy about 25 py. More realistically, a borrower might supplement his 35% loan with 15% from informal borrowings, as shown in Example 4, which makes the 20 py private unit affordable at the 79th percentile, and the largest unit eligible for a loan, 30 py, affordable only at the 92nd percentile. Examples 5 and 6 show that large borrowings in the informal markets, whether combined with a formal loan or alone, are only affordable to the highest income groups.

2.20 This analysis demonstrates that households near the lower income of the second quartile can only purchase a new unit if they have very large savings for the down payment and if there are small units available. In practice, present financing conditions, which force prospective buyers to resort to higher cost informal loans, will have the effect of either attracting much higher income buyers than intended or causing the purchaser to devote a larger share of income to housing.

Housing as an Investment

2.21 The most powerful motive for Korean households to become owners may well have been to protect the value of their savings. Housing has consistently been the best performer when compared to other assets available to households, such as deposits in financial institutions. The real rate of interest on bank deposits has only been positive twice between 1972 and 1982, and then by less than 2.5%. Over the same period, housing prices have averaged rates of increase in excess of the CPI in nine of the last ten years, often by a margin of 10% to 20%. This high rate of appreciation of real estate has caused household wealth to increase rapidly in the second half of the 1970s.[7/] Since 1982, interest rates have been positive in real terms and there is evidence that the rise in housing prices has slowed dramatically.

B. Housing Policy

Evolution of Housing Policy

2.22 Housing policy, which is the responsibility of the MOC, has evolved considerably in the past twenty years. The first deliberate housing policy can be dated to the establishment of KNHC, a government-owned housing developer, in 1962 and KHB in 1967. The early emphasis was on direct delivery of housing services supplied by public sector institutions. These agencies were established to construct a smaller size and lower priced unit than was being supplied by private corporations. An element of the plan was to reduce the cost of these units by having public corporations construct them without profit. The objectives of these corporations were to stimulate housing, mainly by direct public sector supply, while improving access of lower income households by holding down prices and providing long-term housing finance.

2.23 The first fundamental housing plan was established in 1972, during the Third Five-Year Economic Development Plan (1972-76). That year, the Ten-Year Long-Term Housing Plan was developed and the Housing Construction Promotion Law enacted (Law No. 2409). These two documents still form the basic framework for the Korean housing policy, which gives preference to public housing projects in using government lands and provides the rationale for public programs to focus on low-income households. The Ten-Year Plan established a goal of 2.5 million new units between 1973 and 1982 and proposed a significantly larger role for Government in the supply and financing of

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7/ See D. Ortmeyer, "A Macroeconomic Analysis of Domestic Saving Behavior in Korea," Ph.D. Dissertation, University of Wisconsin, 1980.

housing. Shortly after the present Government came to power, a Master Plan for housing was announced (October 1980), which projected ambitious goals for housing but did not fundamentally alter the policy environment for the sector. The main goals or targets were scaled back to somewhat more realistic levels in the Fifth Five-Year Plan (1982-86) issued in 1981.

2.24 Over the years policymakers and the public have focussed their attention on the quantity of new housing units built. Almost all housing policy statements in Korea emphasize the objective of "one house per household" and have made the supply ratio the central test of progress in the sector. However, achievement of this objective has been consistently frustrated. The Fourth Five-Year Plan (1977-81) set a target of 0.80 for the supply ratio by 1981 but the actual outcome was even below the 0.77 registered at the beginning of the Plan. The Fifth Five-Year Plan has 0.78 as its target for 1986 but in 1985 the ratio was only 0.66. In urban areas the situation is much worse. In 1980, the year of the most recent city data, the supply ratio for all cities was only 0.56, and it is estimated that both Seoul and Busan have at least twice as many households as dwellings. Although new construction has fluctuated between 2.7% (1982) and 5.7% (1978) of the existing stock in recent years, the net growth rate of the entire stock has only averaged 2.2% over the past twenty years. The difference is attributable to the high number of removals from the stock, which includes dilapidated units as well as those torn down to make way for new urban infrastructure and other projects.

2.25 Most changes in housing policy have come about much less because of failure of housing production to meet stated output goals than because of public concern over "speculators" and the effect of rapidly rising prices on families' expectations about future home ownership. The 50% increase in prices in one year (1978) had a particularly strong impact on housing policy. The Korea Land Development Corporation (KLDC) was created in 1979 to improve the supply of land, stabilize land prices and reduce investment in land by business firms. Demand restraint was introduced to deal with "speculators", and indirect measures such as ceilings on the maximum size of units and more restrictive rules on capital gains taxation were put into place. Direct intervention in the pricing of new, privately-built condominiums was, and still is, used because the prices of these popular units were believed to have a demonstration effect on the overall market. In actuality, these controls, as applied before the introduction of the "bond bidding system" (para. 2.29), may have merely created windfalls upon resale for first owners. In addition, the direct price controls have almost certainly reduced the output of new units, which conflicts with the Government's supply expansion objectives. For this reason, it is appropriate to consider options to deal with "speculation" in a manner which does not have a negative effect on the supply. The two most promising avenues are full taxation of capital gains and the aggressive promotion of supply expansion.

2.26 Historically, housing policy in Korea has been based more on equity considerations than on economic efficiency grounds. In order to achieve social welfare goals, all actions and programs were focused on first-time buyers in the belief that this would both target the benefits to low-income households and ensure that the emphasis of public programs was on creating additional new units. The latter was thought to be particularly important

because additional units directly affected the main measure of housing conditions, the supply ratio. Initially, the "need" was perceived to be at the lower end of the housing market, but, confronted with the actual distribution of effective demand, the public sector agencies ended up serving a middle-income clientele while private developers have increasingly moved upscale in the market.

2.27 Although housing policy is still viewed as a social welfare matter, there is an increasing interest in examining what is the most appropriate role for Government in the sector. Commencing with the establishment of the NHF in 1981, the Government has moved to revise the fundamental framework for housing policy. It has retained the essential directions of the Fourth Five-Year Plan while adding special measures for some important market segments. Continuing actions have been taken in the area of "speculation" focusing mostly on direct control of prices at the time of initial sale. The rental market has received more attention than in the past, and the Government has introduced measures to re-establish some direct public ownership of rental accommodation. In December 1984, building regulations for the private rental market were changed to permit owners who are renting out part of their unit to add separate entrances and facilities. Such measures should have a visible impact on the supply ratio by removing prohibitions to developing multifamily units contained in building and zoning regulations.

Price Control Policies on New Housing Units

2.28 As mentioned above, the Government directly controls the sales prices of newly constructed public units and of apartments developed by the private sector in designated areas. For the public sector units, sales prices of units produced by the Government's principal developer, KNHC, were previously required to be set at levels which would recover all costs of development including land, infrastructure, house construction and overheads but provide no profit. This pricing principle has been amended since 1977, now specifying particular unit sales prices by dwelling size, determined at the time the project is approved rather than based on market conditions at the time of sale. The effect of this rather rigid pricing policy is that KNHC, which recently had to lower sales prices below cost for some units in local markets where it was experiencing difficulty with sales, is not able to price units in other, more attractive markets at higher prices to offset these losses, which contributes to a loss of profitability for the agency.

2.29 The sales prices of some new, privately built, condominiums are also regulated by the Government. In 1983, the "bond-bidding" system was introduced in selected locations, primarily in Seoul. According to this system, condominium purchasers make an offer to purchase a specific amount of Government bonds (called Type II housing bonds) in addition to the payment of the Government-set condominium price, with the highest bidder receiving the unit. The stated purpose of issuing bonds is to absorb "speculative profits" by developers from sales of newly constructed condominiums. This system works in such a way that the difference between the controlled price and the bid price is captured by the Government rather than by the private developers. Although the introduction of the bond-bidding system is a move toward permitting market prices on newly built units from the purchaser's perspective, the

Government's control of the price which the developers receive has most certainly reduced their incentive to produce housing in these areas, which in turn has contributed to a decline in the supply of new housing for sale. There is a need to review the desirability of the present pricing policies for public developers and of direct price controls on newly constructed private housing.

Interest Rate Policies

2.30 Like all interest rates throughout the formal financial system, interest rates on housing finance loans and savings deposits have in the past been fully regulated by the Monetary Board of the Government in consultation with other government agencies. Interest rates established for 20-year loans for house purchase are presented in Table 2.10 below.

Table 2.10: INTEREST RATES ON HOUSING LOANS

Year	Interest rates on housing loans (%)	CPI change (%)	Real interest rate on housing loans (%)
1977	8.0	10.2	-2.2
1978	14.0-16.5	14.5	-0.5-+2.0
1979	14.0-16.5	18.3	-(1.8-4.3)
1980	15.5-19.5	28.7	-(9.2-13.2)
1981	15.0-18.0	21.3	-(3.3-6.3)
1982	10.0-15.0	7.3	+(2.7-7.7)
1983	10.0	3.4	+6.6
1984	11.5	2.3	+9.2
1985	11.5	2.5	+9.0

Sources: Bank of Korea, Monthly Statistical Bulletins; and MOC data.

Although the Government has frequently adjusted interest rates on new housing loans, those rates were primarily negative in real terms until 1982 due to the very high inflation rates experienced over the late 1970s and early 1980s. Also, for the period 1979-82, the Government established a two-tier system of interest rates for housing loans with a lower interest rate for smaller house sizes (15 pyong or less). This was abolished as of June 1982 in favor of a uniform interest rate for all house sizes. Interest rates on existing loans have not been fully adjusted in the upward direction, making the average spread on the full portfolio even lower.

2.31 In order to be eligible for a housing loan from the two principal suppliers of housing loans, KHB and NHF, individual households have been required to enter into contractual savings schemes, whereby they deposit savings of a particular amount, based on desired house size, on a regular

basis prior to house purchase. The KHB and NHF contractual savings schemes for housing loans have paid somewhat lower interest rates than regular savings deposits in the banking system, which have been negative in real terms until recently. Because contractual savings deposits are a prerequisite for establishing eligibility for housing loans, they have in the past provided a steady and growing source of funds for housing finance, but they may also create management problems if interest rates are fixed during a period of declining rates or if new enrollments are insufficient to make the promised loans when contracts mature. These schemes also provide a record of the household's savings patterns and may be a good source of information on credit worthiness in the future.

Rental Housing Policies

2.32 The private sector provides almost all of the rental units available in the market on an informal basis through the widespread sharing of houses and apartments by owners. Production of new units for the formal purpose of rental, which is a negligible portion of the market, has been supplied by the public sector in the past through KNHC and local governments, with the private sector involved to a minor extent (see Table 2.11). However, formal "rental" units produced by KNHC, the principal supplier, are a misnomer, since in the past these units were provided for rental only on a temporary basis for periods ranging from one to five years. After this time, the units have been converted to sale. Thus, if KNHC "rental" units already sold are excluded from Table 2.11, the number of formal rental units produced in Korea over the last decade amount to a mere 10,500, which represents less than half of 1% of the total number of approximately three million households currently renting.

Table 2.11: FORMAL RENTAL HOUSING CONSTRUCTION BY TYPE OF BUILDER, 1972-83

Type of builder	Number of units constructed	Relative share (%)
KNHC	70,747	87.1
Local governments	6,920	8.5
Private sector	3,538	4.4
Total	81,205	100.0

Source: KRIHS, A Study on Housing Problems and Policy Developments in Korea, January 1985.

2.33 The policy which the Government, through KNHC, has pursued in the past to provide rental units on a temporary basis was better than direct public ownership of rental units but has had a minimal impact on the rental market. The temporary "rental" period permitted the tenant time to save toward the down payment required for house purchase. This program also avoided the difficult financial and management problems associated with direct

public ownership of rental housing experienced in other countries. More recently, the Government is considering participation in the provision of rental housing through KNHC on a more permanent basis. Given the expected growing pressures on the rental market in the future, there is a need to re-evaluate the Government's intention to supply rental housing directly and to examine how the private sector might be stimulated to produce this itself. The recent changes to building regulations which permit private owners to add separate entrances and facilities to increase rental supply are considered to be a step in the right direction.

III. THE HOUSING FINANCE SYSTEM

A. Overview of the Financial System

3.01 The financial system in Korea can be divided into three segments based on the extent of government regulation. The most heavily regulated segment, or first tier, is composed of the Bank of Korea, deposit-taking banks including the commercial banks (seven nationwide or "city" banks and ten local or "provincial" banks), the specialized banks (including KHB), and the non-deposit development financial institutions (Korea Development Bank, Korea Long-term Credit Bank, Export Import Bank). In addition, there were 52 branches of foreign banks in the country at the end of 1984. The second tier of the financial system is less regulated and consists of a wide diversity of financial institutions which have emerged since the mid-sixties: savings institutions (business-oriented mutual savings and finance companies and household-oriented credit unions), life insurance companies, and investment companies (merchant banking corporations as well as investment and finance companies, and security companies serving the securities market). The third tier of the financial system consists of a large number of financial dealers operating in the unregulated money market, commonly known as the curb market.

3.02 The relative importance of the various formal financial institutions, based on the value of assets held, has shifted significantly over the last ten years, mainly as a result of the interest rates permitted by the Monetary Board for various services provided (Table 3.1).

Table 3.1: VALUE OF ASSETS HELD IN THE FORMAL KOREAN FINANCIAL SYSTEM, 1975, 1984
(Billion Won)

	1975		1984	
	Assets	%	Assets	%
First-tier Institutions				
The Bank of Korea	2,174	23	13,713	10
Deposit Money Banks	5,562	57	71,676	54
Commercial Banks	(3,632)	(37)	(43,076)	(33)
Specialized Banks	(1,930)	(20)	(28,600)	(22)
(The Korea Housing Bank)	(168)	(2)	(2,763)	(2)
Development Banks	931	10	17,440	13
Subtotal	8,867	90%	102,829	78%
Second-tier Institutions				
Savings and Trust Institutions	355	4	12,847	10
Insurance Companies	207	2	4,880	4
Investment and Finance Institutions	395	4	11,389	9
Subtotal	957	10%	29,116	22%
TOTAL FORMAL FINANCIAL SYSTEM	9,624	100%	131,945	100%

Source: The Bank of Korea, Monthly Statistical Bulletin, Vol. XXXIX, March, 1985.

Over the last 20 years, the less regulated second-tier institutions have grown faster than the banking institutions. In particular, the short-term investment and finance companies (SIFCs) have grown very quickly in recent years. They were first established as part of the 1972 financial reforms and represented an effort to institutionalize and regulate some of the larger financial dealers operating in the unregulated money market. These SIFCs have been quite successful in their competition with commercial banks as they have enjoyed more flexible interest rate regulations.

3.03 The unregulated curb market has played an important role in the economy. Precise estimates of the total size of the curb market are difficult to make given the nature of its operations. Orders of magnitudes recently mentioned are that the curb market represents the equivalent of 5-6% of regulated domestic credit to the private sector, 10% of total savings and 25% of the money supply. The factors encouraging the existence of this curb market have been: directed credit and controlled interest rates, the scarcity of loanable funds, general borrowers in formal markets crowded out by "priority

borrowers", investors attracted by high but risky rates of return, and under-capitalized businesses with cash flow problems.[8/] A key feature of the curb market is the absence of controls, most notably on interest rates, which have been substantially higher than government-regulated interest rates, and the avoidance of taxes on earnings. It is estimated that the curb market has been declining in a relative sense, although not in absolute terms, since 1972, the year for which estimates are the most reliable. That year, the curb market was estimated to equal 29% of bank lending and 67% of the money supply.

3.04 The curb market is important in the housing finance system in several ways. Because the banking sector, even as late as 1981, was not competing vigorously for household deposits except through the two household-oriented specialized banks, CNB and KHB, and as a consequence of low yields and unattractive services provided, 65% of household savings and 80% of borrowings took place in informal markets including the curb market, according to a 1981 CNB survey. An important share of household savings for housing purposes takes the form of the key money (chonsei) deposit (see para. 3.11), common in rental arrangements in Korea, which is frequently deposited by landlords in the curb market to obtain high returns. The curb market also provides a source of borrowings to supplement the very small portion of housing cost financed by formal institutions.

The Term Structure of Interest Rates

3.05 Until the early 1980s, the Korean Government pursued a policy of detailed administration of interest rates according to purpose, maturity and sources of funds. The Monetary Board has been responsible for the regulation of the level and structure of interest rates and has adjusted these rates periodically according to domestic and international conditions. The most important feature of the new liberalization policy is the gradual decontrol of interest rates with the introduction of the prime rate system and the widening of the interest rate band on lending above the prime rate (increased to a 3.5% band on April 18, 1985) from a previously uniform lending rate for most lending activities by first-tier financial institutions. The interest rate range is now 10.0-13.5% for loans of one year or more.

3.06 In addition to the widening of the interest rate band, an increased emphasis on interest rate differentiation according to loan maturity has occurred since April 1985. This aspect of policy is crucial to housing mortgages, which have the longest maturities of all loans made by the regulated financial system. The term structure of interest rates for loans, however, is still highly regulated and, as yet, not well differentiated. For the same maturity, regulated interest rates can vary within the band, but most loan maturities are relatively short, and, for the longer-term loans, interest rates are not much different or even lower than for the shorter-maturity loans (see Figure 3.1). The past and current interest rate policies on the lending activities have acted to discourage the commercial banks, finance companies

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8/ It has been common for large firms to pay subcontractors with promissory notes discounted by curb market dealers.

FIGURE 3.1
Interest Rates on Loans for First- and Second-Tier Financial Institutions as of March, 1984.

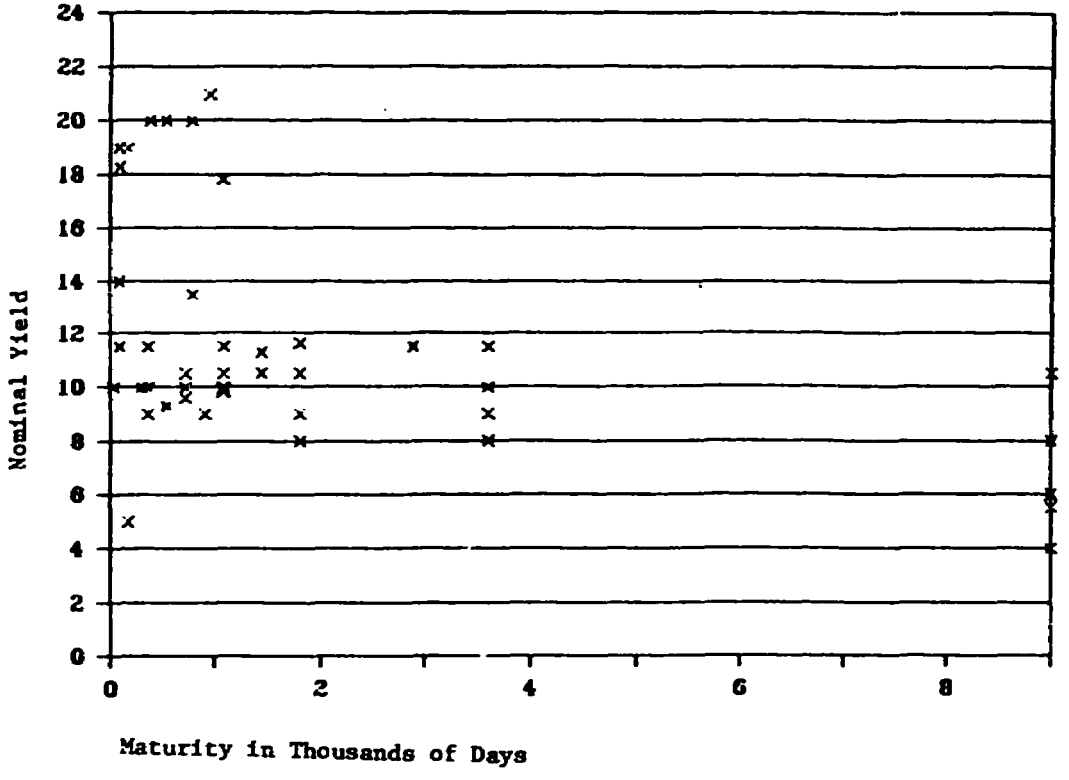
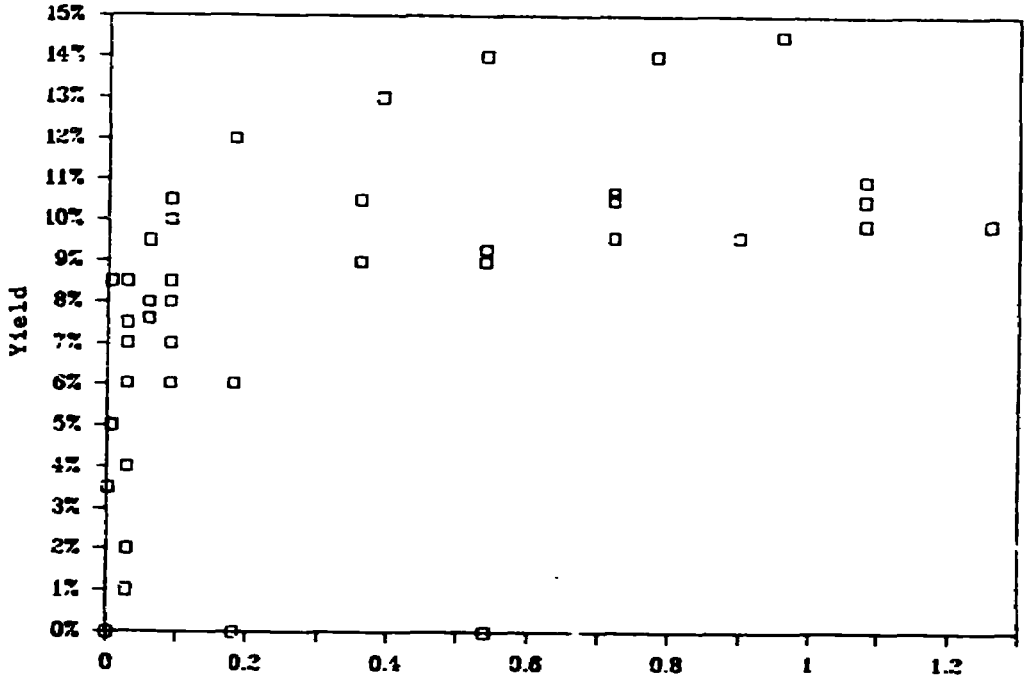


FIGURE 3.2
Interest Rates on Deposits as of March, 1984.



and other formal financial institutions from participating to any significant extent in the provision of long-term housing loans since short-term loans receive the same returns. Further differentiation of lending rates according to maturities is required to encourage greater involvement of formal financial institutions in the extension of long-term loans for house purchase.

3.07 On the deposit side, the yield structure was already much more clearly differentiated by maturity than on the lending side (see Figure 3.2). The April 1985 rate adjustments introduced sharply higher interest rates on household deposits. In particular, depositors in the new household savings accounts will receive twice the earlier rate of 6%, or 12% for deposits of W 20 million or less for a minimum period of six months. Deposits rates between three and six months can now earn 9%. This last interest rate adjustment represents a clear effort to close the gap between the regulated and the unregulated sectors of the financial system to rechannel funds away from the curb market. If the inflation rate remains in the targeted range of 2-3%, the real rate of interest on deposits in bank savings accounts will be as high as 9-10%.

B. The Formal Housing Finance System

3.08 Currently, the institutional structure of the housing finance system is very simple. Only two deposit money banks, KHB and CNB, are financing housing mortgages; the other banks have had no interest in lending for housing given the long maturities and low regulated interest rates of mortgages as well as the lack of any refinancing facility. The other major institutional component is NHF which was established to finance low-income housing. The NHF was separated from KHB in 1981 as a government-directed fund account, and since then its volume of lending activities has been equal to or greater than that of KHB. In addition, the National Agricultural Cooperative Federation (NACF), which functions in Korea as a specialized deposit bank, has made housing loans on a small scale. Since 1981, a few government retirement systems and life insurance companies have contributed to NHF's sources of funds or made mortgage loans. The outstanding housing loans supplied by the formal housing finance institutions through end-1984 are shown in Table 3.2. Since NHF is managed by KHB staff, KHB actually originated about 84% of all the housing loans made by financial institutions in Korea. The table does not show the contributions to housing finance from the informal sector, which are estimated by a recent KRIHS study[9/] to be about three times larger than from formal institutions.

9/ KRIHS, A Study on Housing Problems and Policy Developments in Korea, January, 1985.

Table 3.2: OUTSTANDING HOUSING LOANS AS OF END-1984

	Billion Won	Market Share (%)
National Housing Fund	2,127.0	46.9
Korea Housing Bank	1,660.7	36.6
National Agricultural Cooperative Federation	393.5	8.7
Citizens National Bank	278.6	6.1
Insurance Companies	75.8	1.7
Total	4,535.6	100.0

Source: Government data provided to the Bank mission.

3.09 The housing finance system is underdeveloped compared to the size of the housing market and the potential demand for financial services. This underdevelopment can be gauged in various ways. The volume of outstanding housing loans (mortgages and other) as a proportion of GNP is very low; this ratio was 6.9% in 1984 (see Table 3.3). By comparison, estimates of similar ratios varied from 15% in Japan, to 28% in France and the United Kingdom, 41% in the United States and 64% in Switzerland in 1982. These values, however, are only indicative because of variations among national reporting systems and because they are affected by a variety of factors such as the length of mortgage maturities, loan-to-value ratios, the tax treatment of housing, and the level of interest payments. It must be noted that the Korean ratio has more than quadrupled since 1974, but this improvement is measured against a very low base.

Table 3.3: OUTSTANDING HOUSING LOANS AS A PROPORTION OF GNP

Year	Outstanding housing loans from formal financial institutions (Billion won)	GNP (Billion won)	Loans/GNP (%)
1974	91.0	5,378.10	1.7
1975	121.7	7,503.10	1.6
1976	166.2	10,092.23	1.6
1977	228.5	13,881.11	1.6
1978	328.9	18,115.41	1.8
1979	491.4	24,225.30	2.0
1980	1,026.1	31,248.72	3.3
1981	1,557.4	37,204.98	4.2
1982	2,399.8	51,786.60	4.6
1983	3,336.9	58,428.40	5.7
1984	4,535.6	65,345.00	6.9

Source: Government data provided to the Bank mission.

3.10 An alternative measure of the degree of underdevelopment of the Korean housing finance system is the ratio of housing loans to value of new housing constructed (see Table 3.4). While this ratio has also improved rapidly from 9% in 1979 to 26% in 1983, it again indicates that financial institutions are serving only a small part of the total demand for housing finance services - the balance of requirements has to be met through informal means. In the OECD countries, between 60% and 100% of the value of new construction was covered by new mortgage loans during the 1970s. The full scope of the demand for housing finance could be better understood if reliable information existed on the annual value of sales of existing houses in addition to the value of new houses. In 1983, about 226,000 new units were built representing a gross addition of about 4% to the existing housing stock of about 5.7 million housing units. Given the very high degree of housing mobility in Korea, where the average household has moved every four years in recent years, it is estimated that about 15% of the stock changes hands every year.[10] This implies that the total value of housing transactions is about

10/ In terms of "chains-of-move", this implies that the production of one new unit generates three household moves across the existing stock. See Ridha Ferchiou, "The Indirect Effects of New Housing Construction in Developing Countries", Urban Studies (1982), 19, pp. 167-176. For the purpose of comparison, in the United States where mobility is lower than in Korean urban markets, one unit of new construction generated 3.5 moves. The Korean ratio of 3 is an underestimate but accounts for the presence of renters in some of these moves.

four times that of new housing. On that basis, the ratio of loans to value of total housing transactions is on the order of less than 10%. Thus, the transactions for house purchases or, what is even more unusual, for rentals (as discussed below) require a high level of accumulated savings (wealth) rather than income (cash flow). Also, there is a strong reliance on informal sources of funds for house purchases which are not channeled through formal financial institutions.

Table 3.4: HOUSING LOANS AS A PROPORTION OF NEW HOUSING CONSTRUCTED

Year	Net Housing Loans by Source							Value of new housing constructed	Loan-to-value ratio (%)
	KHB	NHF	CNB	NACF	Retirement funds	Insurance companies	Total		
	(Billion won)								
1979	194.6	-	1.4	96.2	-	6.0	298.2	1,965.20	9
1980	284.3	-	11.6	82.6	-	8.7	384.2	2,613.03	10
1981	315.8	233.9	29.9	57.2	-	11.5	648.3	2,351.22	25
1982	419.6	264.1	309.8	18.9	-	27.5	1,039.9	3,213.04	32
1983	474.3	500.7	44.2	35.2	23.2	34.0	1,111.6	4,326.93	26
1984	346.3	610.6	31.3	34.3	n.a.	21.7	1,044.2	4,628.78	23

Source: Government data provided to the Bank mission.

C. The Informal Sources of Housing Finance

"Chonsei"

3.11 A type of financial claim particular to Korea is the "chonsei" or key money deposit system extensively used in the rental market. The chonsei system consists of a payment of a large cash deposit to landlords in lieu of monthly rental payments. This cash deposit can be increased by the landlord during the tenancy and must be refunded in its entirety by the landlord when the tenant vacates the dwelling. The interest foregone by the renter is expected to cover the implicit rental value of the dwelling. Instead of raising rents when the rental market becomes tight, landlords increase the amount of the chonsei. Chonsei deposits not only permit access to rental but, when refunded, act as an important source of housing finance for house purchase. This pervasive system was developed in response to earlier economic and financial market conditions when inflation was high, regulated interest rates were low and housing was in extremely short supply. The chonsei system served the Korean market quite well at earlier stages of development, but continuing financial development should lead to its replacement by better financial services provided by institutions. It is also an indicator of the limited penetration of formal financial institutions in Korean household markets. Because of its unique features and its significance as a source of housing finance, a detailed presentation is helpful to this review.

Table 3.5: "CHONSEI" ESTIMATES, 1983 /a

Rental of Entire Unit

	Average dwelling value (W'000)	Chonsei (W'000)	Ratio (%)
Location			
Seoul	22,000	9,595	44
Large cities	15,597	5,181	33
Small cities	16,819	5,423	32
Average	18,930	6,673	35
Type of Unit			
Detached Housing	24,956	5,791	23
Tenement Units	16,476	5,893	36
Apartments	18,014	7,174	40

Rental of Part of the Unit, All Locations

Chonsei Amount	Frequency (%)
Above 6 million won	38
5-6	21
4-5	13
3-4	17
under 3	11
Average value	5.4 million won

/a Figures are illustrative and not fully representative because the sample is small.

Source: KHB, Survey of Borrowers, 1983.

3.12 The level of resources that renters have to provide in a chonsei contract is very substantial. In general, when KHB or CNB make loans against housing collateral, they routinely assume that the owner has generated a chonsei claim equal to 30% of the current market value of the house or rooms rented. Of course, this kind of ratio varies according to the type of unit and local market conditions, as illustrated in Table 3.5 above. Therefore, in Korea not only ownership but also access to rental are determined by the financial savings already accumulated by the renter instead of his current income. Because it is not always possible to accumulate such large financial savings for housing, various forms of rental contracts exist such as partial or declining chonsei, which include blends of key money and monthly payments. Pure chonsei, which was the most common form of rental contract in the past, is now gradually being replaced by a greater use of partial chonsei and monthly rental payments.

3.13 Crude estimates of the aggregate magnitude of the chonsei claims compared to the size of the housing finance system can be made on the basis of the number of fully or partially rented units, the average value of a housing unit, and the ratio of chonsei to the value of the space rented (whole or part of a unit). Table 3.6 presents estimates based on the 1980 Census. These numbers show orders of magnitude which would need to be refined on the basis of surveys to take into account the actual distribution of housing prices, the subset of units rented and actual proportion of pure chonsei, partial chonsei, declining chonsei, and other rental contracts. However, there is no doubt that the financial claims generated by the chonsei system have been considerably larger than the outstanding institutional lending for housing by a factor of about 5.7 in 1980, and probably by over two times in 1984. Aggregate chonsei claims are also larger than net outstanding mortgage loans. These comparisons clearly demonstrate that there are still major opportunities to increase the formal financing of housing by channeling chonsei through the financial system before triggering a displacement of savings from other sectors toward the housing sector.

Table 3.6: TOTAL "CHONSEI" RENTAL CLAIMS IN 1980

	No. of housing units /a		Value of Chonsei (in W mln) /b	
	Whole country	Cities	Whole country	Cities
Households renting entire unit	697,113	498,072	3,137,000	2,241,324
Households renting part of unit	1,501,533	1,207,316	2,702,759	2,173,169
Total	2,198,646	1,705,388	5,839,759	4,414,493

Sources: (a) EPB, Population and Housing Census, 1980.

(b) Based on a median housing value in 1983 of W 15 million and chonsei ratios of 30% for exclusive rental and 12% for partially rented units.

3.14 The volume of chonsei claims is evidence of inefficient financial intermediation in the housing sector, both for landlords and for tenants, compared to the new possibilities offered by financial institutions. Under the chonsei system, landlords are forced to become financial micro-intermediaries without always having the necessary skills or the possibility of diversifying their risks. They face a yield problem because they need to obtain a yield on the chonsei deposit equal to the implicit rental value of the unit. They also have a liquidity problem and must plan their investments well enough to be able to return the deposit when required, even if additional borrowing is difficult. They may very well face a term-intermediation risk if they are using these short-term funds to finance a long-term investment. There is also

a significant denomination intermediation risk due to the lumpiness of the chonsei. This last risk increases when curb market interest rates are high and the housing market is slow; in such situations the lumpiness of the chonsei system can force distress real estate sales if renters urgently need their chonsei back, which thus further contributes to market fluctuations.

3.15 The chonsei system evolved in a situation characterized by very tight housing markets and underdeveloped financial services. The tenants are required to provide large lump-sum payments instead of relying on their monthly income cash flow: the chonsei amount is typically equal to one year of income, frequently more. Tenants assume all default risks in the transaction - their savings are only partially protected by current rental laws, while landlords receive all or part of their rental payments in advance. In cases when they are experiencing serious financial liquidity problems, renters may even be forced to move out in order to recover their deposit and meet other obligations. Many renters borrow a portion of their chonsei deposit. While it is clear that the implicit yield for renters on their chonsei deposit should be estimated at curb market rates, they have a reduced choice of using banking facilities for depositing their savings more safely and efficiently. The chonsei system may also cause households to rent less space than they would under a monthly rate system because of problems in assembling the deposit. Finally, it is possible that the extensive use of chonsei discourages rental of separate units because of the large sums required, thereby limiting access to rental of entire units to middle and upper income families.

3.16 Although the chonsei system provides a high level of security to landlords, the imputed rents would indicate a market where rents are competitively set. The value of an average chonsei deposit, calculated by taking the curb market interest rate, is less than 1% per month of the value of the unit or rooms rented. The high level of mobility, the absence of any distorting price controls, and the fact that there are no landlords with monopolistic power tend to hold these imputed rents down to a rate which is not excessive in the economic context. If a monthly payment system were to emerge on a widespread basis, it is likely that the demand for rental accommodation would rise, because households with good incomes but low savings would be able to rent more or better housing.

3.17 Monthly rental contracts have become more popular for some time, rising from 23% of renters in 1975 to 37% in 1980. Market conditions, since 1981, are likely to accelerate the replacement of the chonsei system with monthly rental arrangements, since household savings with banking institutions are no longer penalized by inflation. Recent surveys, undertaken by KRIHS in 1985, show that partial chonsei contracts, under which a portion of the rental payment is on a monthly basis, are now more widespread than the pure chonsei contracts prevalent in the past. Both landlords and renters should find it to their advantage to use the services of financial institutions. The shift from negative real deposit rates in the 1970s to large positive rates at financial institutions since 1981 is making curb market transactions relatively less attractive for most households. With recent interest rate increases, household savings deposits of six months or more can earn 12% interest, while risky curb market yields are around 22%, and moving down, as compared to annual deposit rates of 6% and curb market yields of 26% of just a few years ago. The evolution of the rental payment system could facilitate this transition.

Other Informal Sources of Housing Finance

3.18 Information regarding the other sources of financing required to supplement formal sector loans for house purchases is provided in a variety of surveys conducted by KHB and the public housing developer, KNHC. A particularly detailed survey undertaken by KHB in 1982 provides useful insights for a sample of its borrowers. The results of the survey are presented in Table 3.7 below, which shows a breakdown between previous owners and those who are purchasing a house for the first time.

Table 3.7: SOURCES OF HOUSING FINANCE FOR KHB BORROWERS (percentages)

	All households	Pre-owner	First-time owner
Own Funds			
Sale of Previous House	20	51	-
Key Money or Chonsei	13	-	23
Savings	25	14	31
Gifts	2	2	3
Subtotal	60	67	57
Financial Institutions			
KHB	34	29	36
Other	2	1	2
Subtotal	36	30	38
Other			
Rental Income	2	2	2
Other	2	1	3
Subtotal	4	3	5
TOTAL	100	100	100

Source: KHB, Survey of Borrowers, 1983.

In aggregate terms, 60% of the funds for house purchases came from the purchasers' own funds, and 4% was derived from other sources to supplement the 36% provided by financial institutions. No substantial differences are found in the composition of the broad sources of funds between pre-owners and first-time owners. Obviously, the ratio of own funds to housing prices is significantly higher for pre-owners than for first-time owners due to the considerable financing derived from the sale of houses.

3.19 Although this survey portrays a rather precise picture of how KHB borrowers finance their purchases, on average, it may not represent the actual situation faced by many home buyers. First, the numbers reported in the table are averages where many borrowers have a zero entry in some categories. For example, although gifts account for only 2% of the funds used, on average, for

those who received a gift the actual share is 22% of the value of the unit purchased. Although the data is not compiled in a way to show this for each source, the story is likely to be similar. According to information from CNB and the studies of the curb market, it is likely that many purchasers have outstanding loans against their existing houses or chonsei and may be reporting savings which are actually informal borrowings.

D. Mobilization of Savings for Housing Finance

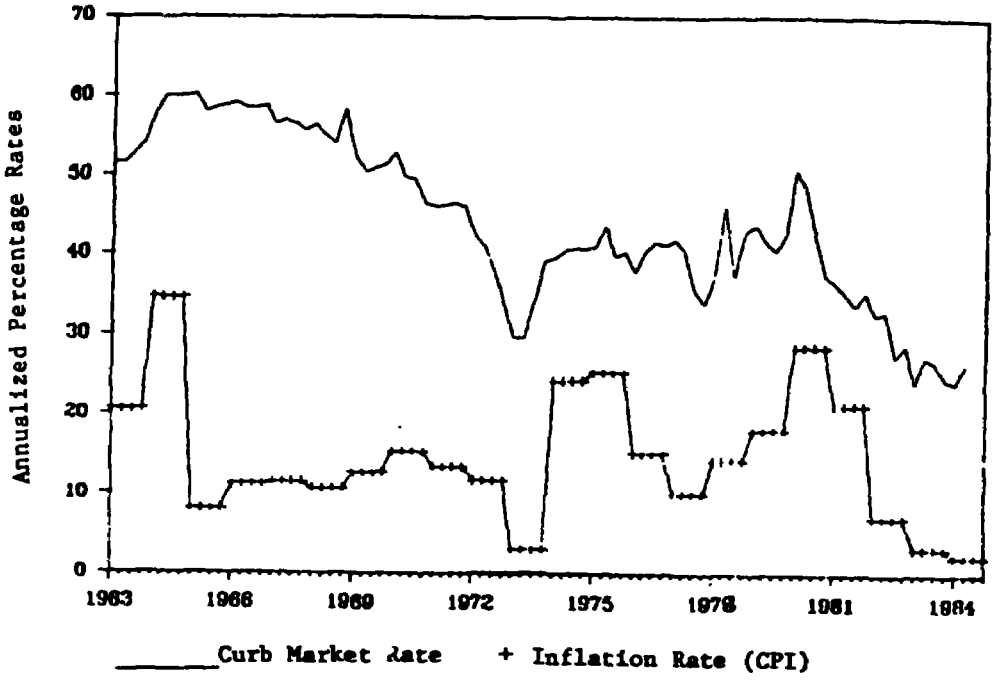
3.20 Domestic household savings, which are the most important source of housing finance, and the most volatile component of national savings, have risen significantly during the period 1960-80, despite frequently negative real interest rates on bank demand and time deposits when few attractive financial assets existed. The gross national savings rate rose from about 10% in the early 1960s to about 27% in 1984,[11/] which is considered a high rate, although it remained less than in Japan (over 32%) and Singapore (about 29%) over the same period. Household savings increased from about 2% of GNP in the early 1960s to a peak of 12.4% in 1978 and 9.3% in 1984 but have not been very sensitive to the low, regulated interest rates of the past. The main determinant of total real household savings during the period would seem to have been the rapid rate of growth in real household income [12/] and curb market interest rates, which have been considerably higher than regulated rates and consistently positive in real terms (see Figure 3.3).[13/] It is expected that the current period of significant economic growth with positive real interest rates in the regulated sector would continue to encourage high levels of household savings over the near term.

11/ Gross national savings are defined here as GNP plus net current transfers from the rest of the world less consumption, which represents savings by the household, corporate, government and foreign sectors.

12/ Kittack Hong, "Monetary Policies in Semi-Industrial Countries: Theory and Evidence from Korea and Taiwan", Ph.D. Dissertation, Stanford, December 1983.

13/ See Sweder van Wijnbergen, Short-Run Macro-Economic Adjustment Policies in South Korea, World Bank Staff Working Paper No. 510, 1982; also Shahid Yusuf and R.K. Peters, Savings Behavior and Its Implications for Domestic Resource Mobilization: The Case of the Republic of Korea, World Bank Staff Working Paper No. 628, 1984.

FIGURE 3.3
Curb Market Rates, 1963-1984.
Annual Rates by Quarter.



Source: BOK Surveys

3.21 Based on surveys of household and corporate behavior, it is estimated that in 1981 only about one-third of savings from these sectors were kept in formal financial institutions, while about two-thirds were channeled through the informal financial system. The shrinking gap between interest rates in the curb market, and those in the regulated financial system, is creating the climate for a shift of savings to the formal sector. However, the informal sector is still estimated to handle more than half of household and corporate savings. With further liberalization of the financial system through policies of progressively decontrolled interest rates and the creation of more flexible savings instruments, it is expected that it would be possible to rechannel these savings from the informal sector to the banking system. As long as KHB offers interest rates competitive with other formal financial institutions, savings deposits at KHB are likely to increase, which would also increase the funds available for housing finance purposes without necessarily requiring a diversion of resources to the formal financial system from other sectors. The net benefit of an increased flow of savings resources through the formal financial institutions would be to increase the efficiency of financing investments in general and housing investments in particular.

IV. THE HOUSING FINANCE INSTITUTIONS

A. The Korea Housing Bank (KHB)

Background

4.01 KHB was established in 1967 [14/] to stimulate an increase in the supply of housing by having a banking institution devoted to raising and managing the funds going to the sector. The KHB's mandate was stated in very broad terms. It was, essentially, to improve housing conditions in general, and the distribution of housing in particular, by providing a larger supply of housing finance to low- and middle-income households nationwide. The KHB was to do this while imposing the least possible financial and administrative burden on the Government. It was provided with a number of fund mobilization instruments to help it achieve this mandate. The Government assured control over the bank by retaining the power to name the Board of Directors, the chief executive officers and the auditor as well as by fully controlling its deposit and lending interest rates. The recently enacted Government-Invested Enterprise Management Act, which includes KHB among 24 institutions, should enable KHB to function somewhat more independently in the future by having greater autonomy in setting its own objectives and being judged by its ability to meet them.

4.02 The Government amended KHB's legislation in April 1981 in order to formally separate the low-income window from KHB's other operations through the establishment of the NHF.[15/] This separation was intended to allow the two agencies to focus on distinct segments of the market and thereby be more efficient and effective in achieving housing objectives. The KHB was to focus on providing "market" housing while NHF was to focus on providing "social" housing.[16/] While this separation was in principle sound, it has proven difficult to achieve in practice, since the two institutions have overlapping mandates and activities.

14/ The Government had set up an account within the Korea Development Bank called the Housing Fund Depository in 1957, which essentially served to channel some of the post-Korean War foreign aid to the housing sector.

15/ Although a separate entity, NHF is managed by KHB staff on a fee basis.

16/ Market housing refers to housing provided by private sector developers which was expected to serve middle- and upper-income groups while social housing refers to housing provided by public sector agencies which was to serve the lower end of the market.

Sources of Funds

4.03 The main sources of funds for KHB's operations are deposits (demand, time, savings and contractual schemes) made by its clients and, to a lesser extent, loan repayments (see Table 4.1). The fastest growing (87% over 1980-84) and most important source of funds (46% of total deposits as of end-1984) has been the time deposits. These deposits have a maturity of three to twelve months and should benefit most from the April 1985 changes in interest rates, which sharply differentiated the short-term interest rates for deposits of different maturities.[17] In addition, the Government has made available to KHB the Worker's Asset Formation Deposit (WAFD), a powerful mobilization scheme providing KHB with an advantage in raising funds - until recently, when the scheme was also made available to other deposit banks. The WAFD accounts have offered interest rates roughly comparable to curb market rates, and currently the annual yield is up to 23.9%, providing a real rate of return of 19%. Since KHB pays only 7.6-8.0% of the interest while the Government pays the rest, the future of WAFD as a source of housing finance may be limited because of the very high element of government subsidy. As a result of new lower limits imposed by the Government on the maximum income a saver can have in order to enroll in a WAFD contract, these funds have been declining as a share of total funds raised by KHB, from 40% of deposits as of December 1978 to about 14% as of December 1983. Since WAFD contracts are now available at other banks, their share as a source of funds for KHB is expected to decrease even further in the near term. However, KHB has been able to take advantage of other non-price incentives to mobilize resources through its housing and general installment savings deposits, in which potential borrowers must have participated before being eligible for housing and other loans.

17/ 6% for less than three months, 9% for three to six months, and 12% for six months or more.

Table 4.1: KHB's SOURCES OF FUNDS (NET OF RESERVE REQUIREMENTS)
1982, 1983
(W mln)

	1982	%	1983	%
Internally Generated Funds:				
Demand, time and savings deposits	372,419	53.4	473,235	52.2
WAFDs	90,181	12.9	126,091	13.9
Housing installment savings deposits /a	49,676	7.2	81,305	9.0
Loan collections	44,844	6.5	72,440	8.0
Accrued interest from installment savings deposits	132,697	19.0	149,041	16.4
Subtotal	689,817	99.0	902,112	99.5
Capital contributions /b	7,000	1.0	5,000	0.5
Total	696,817	100.0	907,112	100.0

/a Contractual savings scheme required for housing loans.
/b 94% of the paid-in capital of W 29,000 million as of end-1984 was contributed by the Government.

Source: KHB, Statistical Yearbook, 1983.

Loans for Housing

4.04 The KHB's mandate is to lend funds primarily for housing purposes, as its name would imply. However, KHB is not completely specialized in housing lending, since it is permitted to advance loans for commercial purposes up to 20% of its loanable funds. The distribution of loans according to purpose in 1982-84 is shown in Table 4.2. Within the housing category, KHB offers a number of types of loans, most of which are made to purchasers of new houses. As a maximum, KHB finances the purchase of new houses up to a size of 30 py. Consistent with the Government's objective to use land efficiently, an increasing share of loans is advanced for purchases of apartments and row houses. KHB has an extensive network of branches (149 in 1984) which enables it to make loans nationwide. In 1983, half the loans were advanced to borrowers in Seoul where the largest and strongest housing market exists.

Table 4.2: KHB LOANS BY PURPOSE, 1982-84
(W mln)

	1982	1983	1984
Housing loans	376,719	447,835	328,956
Housing material production loans	2,600	2,840	2,715
Other housing-related loans	18,845	23,416	14,560
Subtotal, housing loans	398,164	474,091	346,231
Commercial loans	29,658	60,622	33,221
Other loans	3,813	15,934	16,752
Total	431,635	550,647	396,204
Housing loans as a proportion of total loans (%)	92.2	86.1	87.4

Source: KHB, Statistical Yearbook, 1984.

Terms of Loans

4.05 Loans made to purchasers of new houses had twenty-year maturities and an 11.5% interest rate as of November 1984. These loans are of a level-payment type with a variable interest rate that can be adjusted by KHB during the repayment period. Since 1980, general interest rates have been declining progressively, and thus interest rates on existing KHB mortgage contracts have been adjusted downward as well. However, there is no indication that interest rates on mortgage contracts were adjusted upward, in the 1970s when interest rates were rising, most probably because of political constraints. More recently, with the increasing interest rates brought about by financial liberalization, KHB adjusted interest rates on existing mortgage contracts upward from the 10% rate prevailing in 1983 to 11.5% in 1984. The most significant feature regarding the terms of the housing loans issued by KHB is the small share of housing costs covered. Although the regulations permit lending for between 70% and 80% of the value of a unit, the loan ceilings and valuation procedures work together to make the average loan-to-value ratio only 0.32, according to 1983 KHB data. Also, specific ceilings for loan amounts up to a maximum of W 10 million are established by unit size, and there are restrictions on the age of units financed (not older than five years). The total effect of these conditions on loans to home buyers is essentially to make only one financial product available to all. A greater diversity of mortgage instruments is required to better meet the varying needs of house purchasers.

Housing Loan Clientele

4.06 The KHB is rare compared to lending institutions in other countries in that it does not attempt to verify the income of its borrowers, instead relying on the high level of equity from buyers to promote good repayment patterns. In effect KHB lends against the collateral rather than the repayment capability of the borrower. Even though this practice poses no threat to KHB, as long as the relative size of its loans remains small, there is a public interest in knowing about the characteristics of those who receive a service such as housing finance, for which the supply is limited by public policy and the price is held below the market clearing level.

4.07 The KHB conducts an annual survey of its borrowers which reports, inter alia, on their income. The survey reports income measured as "total household income" - which includes income derived from assets as well as wages and salaries, and "total labor income" - which includes only wages and salaries. According to the 1983 survey results, the distribution of total household incomes of KHB borrowers does not deviate significantly from that of the cross-section of urban households, while the distribution of total labor income of KHB borrowers considerably overrepresents the upper-income strata of urban households. The mean for KHB borrowers, as measured by total household income, is the 49th percentile, and for total labor income the 77th percentile of their respective distributions. In other words, KHB borrowers are those whose labor earnings are relatively high but whose non-labor incomes, which primarily depend upon the level of asset accumulation, are relatively low. The relatively small maximum house size limitation of 30 py has not deterred this middle- to upper-income clientele for KHB.

Problem Areas in Operations

4.08 Internally, KHB has been operated efficiently and, given the constraints under which it must work, has consistently improved its performance. However, the scale of KHB's operations has remained small relative to the size of the housing market, because its management is not free to alter mobilization techniques, lending instruments or interest rates in response to demand. The administered interest rates are responsible for the recent poor profitability of KHB. The KHB's net income has been declining steadily and rapidly (-25.7% p.a.) despite a fairly substantial growth in revenues (27.2%) over the period 1978-83. In fact, KHB incurred operating losses in 1982 and 1983 - amounting to about 6% of revenue in the latter year, although net incomes were reported to be positive during these years due to "specific profits" in the form of interest payments received from the Bank of Korea on required reserves. This situation is a result of the very small margins under which the institution has been required to operate since 1978 (as shown in Table 4.3), and it is expected to deteriorate further with the new negative spread between the six-month deposit rate of 12% and the regulated interest rate of 11.5%.

Table 4.3: KHB INTEREST SPREADS
(% p.a.)

	Average cost of deposits	Average return on loans	Average spread
1978	12.7	10.9	-1.8
1979	11.9	12.5	0.6
1980	14.8	13.6	-1.2
1981	15.6	16.5	0.9
1982	11.8	12.4	0.6
1983	8.8	9.7	0.9

Source: KHB, Annual Report, 1978-83.

4.09 The central problem faced by KHB is that it has not been able to mobilize and lend enough to make a significant contribution to alleviating the very crowded conditions in urban housing. The constrained size of the housing finance system relative to demand has led to rationing procedures, which have served to make it more difficult for lower- and middle-income households to use the low loan-to-value mortgages offered. Specific measures are needed which would allow KHB to grow in response to mortgage demand while at the same time maintaining a healthy financial position.

B. The National Housing Fund (NHF)

Background

4.10 The NHF was established on July 20, 1981 with the objective of raising and facilitating the supply of housing finance to enable the Government to carry out its overall National Housing Construction Plan. It is a "fund" of the Central Government which raises resources through various tax-like instruments and deposits, lending them out to public sector developers for house construction after which they are converted to mortgages for home buyers. The Fund is essentially an expanded version of the National Housing Construction Loan (NHCL) Program started in 1973, is operated by KHB, and subsequently became a separate fund distinct from the KHB. While KHB answers to MOF, the NHF is directly under the control of MOC, which determines its overall policies on the advice of its Housing Bureau/Policy Division. For administrative purposes, the day-to-day management of the Fund has been delegated to the President of KHB and his designated staff.

4.11 There are a number of reasons why the Government chose to remove the NHF accounts from KHB's activities to support the separation of "social housing" from "market housing" lending purposes. It wanted to enlarge the size of the housing finance system, and it was easier to raise funds from government sources if NHF was directly responsible to the Government. While

NHF's predecessor, the NHCL program, was empowered to tap a variety of resources,[18] it historically relied on housing bonds for the bulk of its loanable funds. However, the volume mobilized did not grow rapidly enough and was considered by the Government to be insufficient to meet its plans for expanding the housing finance system. Also, since the NHF, as a government fund, was not subject to domestic credit controls (which apply to all deposit banks including KHB), its separation from KHB provided greater flexibility in its activities. Lastly, the separation of the NHF and KHB accounts permitted each to be reported separately, so that the performance of each could be individually monitored.

4.12 The NHF has quickly become a major player in housing finance. Since being established in 1981, NHF has made 312,175 loans for W 1,895,915 million (to end-1984). This is 23% more units financed and 32% more resources lent than by KHB for the same period.

Sources of Funds

4.13 In contrast to KHB, which relies almost totally on various savings deposits, NHF relies to a great extent on funds from various government sources (see Table 4.4). National housing bonds are the largest source of funds for the NHF and are expected to continue to be so for some time. Presently, there are two types of housing bonds for which the Government guarantees the repayment of principal and interest at maturity: (a) Type I, which are compulsory for those requiring permits or licenses for various types of activities; and (b) Type II, which were initiated in 1983 with the introduction of the bond-bidding system for the sale of privately built condominiums. Both are low cost sources of funds for NHF, with Type I bonds currently yielding 5% fixed interest per year with a maturity of 5 years, and Type II bonds currently yielding 3% per year with a maturity of 20 years. The NHF's liabilities are concentrated in maturities of less than five years, while almost all loans are for 20 years.

18/ Including national housing bonds, housing lottery, central government loans, foreign loans, as well as loans from KHB, agricultural cooperative unions and local governments.

Table 4.4: NHF'S SOURCES OF FUNDS (NET OF REPAYMENTS)
1982, 1983
(W mln)

	1982	%	1983	%
Internally Generated Funds:				
Savings deposits	53,435	11.5	130,644	14.1
Lottery funds	7,830	1.7	9,966	1.1
Loan repayments	49,577	10.6	44,721	4.8
Accrued interest on bonds and other income	72,922	15.7	180,636	19.5
Balance carried over from previous year	17,870	3.8	198,892	21.5
Subtotal	201,634	43.3	564,859	61.0
Borrowings:				
National housing bonds - Type I	179,527	38.5	223,235	24.1
Type II	-	-	68,097	7.4
Pension funds	45,767	9.8	24,545	2.7
Foreign loans (IBRD)	-	-	794	-
Subtotal	225,294	48.3	316,671	34.2
Government contributions	39,000	8.4	44,000	4.8
Total	465,928	100.0	925,530	100.0

Source: KHB, Statistical Yearbook, 1983.

4.14 With the establishment of the independent NHF, two new government funding sources have become available for the housing finance system. They are direct equity contributions from the Central Government and various national pension funds. Beginning in 1981, the Government instructed 19/ the managers of several national pension funds to make deposits into the NHF. A small 20/ portion of the pension investment funds (excluding member contributions which are managed in a special account) previously deposited with commercial banks was diverted for use by the NHF, which pays the same interest

19/ As per the Housing Construction Acceleration Law, Article 10, Part 2.

20/ Estimated at less than 5% during 1981 and 1982.

rate as would be paid by the commercial banks.[21/] The term of the borrowings from the various pension funds is three years.

4.15 NHF currently offers one type of savings scheme for its depositors, known as the National Housing Preemption Subscription Deposit Scheme. This deposit scheme was designed to induce prospective purchasers to make deposits in advance for the whole part of the down payment. Although in the past priority for loans was based on the size of deposit, which in some cases favored those with higher incomes, the regulations have been modified to give priority to those who have been "homeless" [22/] for three years or more in a particular administrative district and to long-term savers. Another source of funds for NHF is the Olympic lottery funds (which replaced the housing lottery in April 1983). Housing lottery tickets have been sold to the public to finance national housing projects since 1969. It has the twin objectives of raising funds for both Olympic facility construction and housing development, with about 35% of the net revenues earmarked for national housing projects. The remaining sources of funds for NHF's program include repayments of housing loans, foreign loans and other income.

Loans for Housing

4.16 Housing loans from NHF are initially made available for the construction of new houses built by public sector developers, primarily local governments, and KNHC. National housing funds are currently provided in the form of housing construction and housing lottery loans. National housing construction loans, which represented about 99% of NHF's outstanding loans as of end-1983, are intended for the construction of relatively small houses built in large quantities to be sold to lower-income families purchasing homes for the first time. The loan to the public developer is converted to mortgages and passed on to each purchaser at the time of house sale. A small portion of NHF's loans for construction are made available for special projects and rental housing. Included in the category of special projects are disaster relief, redevelopment and solar housing projects. Housing lottery loans, which represented about 0.9% of outstanding loans at end-1983, are made to veterans and families of those who died in service. The remaining 0.1% of NHF's portfolio of loans consists of loans to small private developers for site development, which were inherited from the NHCL program. Currently, NHF does not advance loans to private developers (except for a small group of locally registered builders who construct small-sized housing units for low- and moderate-income families), who can, however, seek financing from KHB and CNB. As an upper limit, the NHF does not finance units greater than 25.7 py, which is considered to be the size of a moderate-income house. NHF loans are distributed through KHB's branch network to all nine provinces of the country and to Seoul and Busan cities. For 1982/83, more than 50% of all loans advanced were in the Seoul, Geonggi and Geongnam Regions.

21/ A three year savings deposit at a commercial bank earns 12% p.a. since April 1985.

22/ Meaning those who have been renters and have not owned a house.

Terms of Loans

4.17 Loans from NHF are made to individuals for the purchase of new houses at a current interest rate of 10.0% to be repaid over 20 years with one year grace on principal, on a graduated payment mortgage (GPM) basis, whereby payments increase by a predetermined amount over the life of the mortgage and interest rates are permitted to vary. The terms of loans to veterans and families of those who died in service are at a lower rate of interest, which was 4% in 1984, to be repaid over 20 years on a GPM basis. Since general interest rates have been declining progressively since 1980, the variable interest rates on existing NHF mortgage contracts have been adjusted downward, as have KHB contracts, from their peak of 17% in 1980 to a low of 10% in 1982. Also, loan ceilings are established by house size, as with KHB, up to a maxiumum amount of W 7.5 million, and loans are essentially limited to new houses produced by public developers.

4.18 Prior to NHF's establishment, the former NHCL program was restricted to the financing of 20-40% of the total housing price, which included land and house price. This meant that potential home purchasers were required to provide a down payment of 60-80% of the housing price, which was prohibitive for the low-income groups. This limitation was removed for NHF, so that it could provide financing for approximately 50% of the housing cost, on average, during the Government's Fifth Plan period (1982-86). Loan ceilings are established, which permit financing of up to 60% of the house cost for the smaller units (less than 15 py), with the proportion of financing decreasing as house size increases.

Housing Loan Clientele

4.19 Although NHF's clientele is intended to be lower-income families, it is very difficult to assess NHF's ability to target its mortgages to this group due to the lack of an income test when loans are made. Current public policy thinking is that the size of unit is a good determinant of the income level of the home buyer, since it is believed that only low-income families would purchase small units. Furthermore, from an operational view-point, incomes are not verified when mortgage applications are reviewed, because the high down payments indicate that home buyers have substantial amounts invested in their houses, thus making the likelihood of default very small. Clients of NHF could have somewhat lower incomes than KHB clients due to the lower down payment requirements and softer GPM repayment terms provided which make home purchase somewhat easier. Actually, clients are likely to be more middle- to upper-income than lower-income, because housing is in short supply for all groups - implying keen competition for available units, and because under KHB programs, where incomes are known, middle- to upper-income buyers purchase similar size units. Without an income test, government programs which attempt to target benefits to lower-income families become ineffective.

Comparison of NHF and KHB Lending Activities

4.20 Comparisons of NHF's lending performance in 1983 with that of KHB are made in Tables 4.6 and 4.7 to highlight the differences between the public and private sector roles in housing finance. The results demonstrate that

there is not much difference between NHF and KHB in terms of the size or type of units financed. For example, in 1983 the average size of an NHF-financed unit was 16.6 py versus 19.1 py for a KHB-financed unit, which is largely explained by the different mix of unit types financed. Eighty-two percent of NHF loans were for apartment purchases, 14% for row-houses and only 4% for single family dwellings. KHB financed 16% single family dwellings, 36% row houses and only 48% apartments. The primary difference in the activities of NHF and KHB is seen in terms of the mechanism by which their respective loans are made available. The NHF lends mainly to public developers who onlend to individuals, whereas the bulk of KHB funds are lent directly to individuals and private contractors. In addition, there are no significant differences in the terms offered on their respective housing loans (see Table 4.5), except for down payments. NHF lends for about 50%, on average, of the total house price compared to about 30%, on average, for KHB. In 1983, NHF was about 6% larger than KHB, both in terms of number of units financed and volume of funds lent, since it lent W 500.8 billion for 81,265 units versus W 474.1 billion for 76,996 units by KHB.

Table 4.5: TERMS AND CONDITIONS OF KHB AND NHF HOUSING LOANS
(as of December 1984)

	KHB	NHF
Eligible house size	Below 30 pyong	Below 25.7 pyong
Interest rate	11.4% /a	10.0%
Loan amount	5-10 million won	4-7.5 million won
Terms	3-20 years	20 years, 1 year grace
Repayment method	Equal installments	Graduated

/a KHB's lending rate was 10.0% from June 1982 to January 1984 and 10.4% until November 1984.

Source: KHB, data provided to the Bank mission, 1984.

Problem Areas in Operations

4.21 The NHF has been unable to lend all funds raised in recent years due, in part, to the failure of the public delivery system to supply an adequate quantity of units eligible for NHF funding. For example, in 1983 no NHF-financed units were constructed by KNHC in Seoul, the most important housing market in Korea. One of the most serious constraints has been that the scale of operation of large public developers such as KNHC means that the minimum plot of land required for a project is difficult to find. Given the growing demand for housing services and financing, as evidenced by the high level of participation in contractual savings schemes at NHF, ways to stimulate the supply of smaller houses need to be sought.

Table 4.6: NATIONAL HOUSING FUND AND KOREA HOUSING BANK: LOANS BY PURPOSE IN 1983

Purpose	No.	%	Ave. size (py)	Single dwellings No.	Single dwellings %	Single dwellings Ave. size	Row house No.	Row house %	Row house Ave. size	Apartments No.	Apartments %	Apartments Ave. size
National Housing Fund (NHF)												
Agricultural house remodeling	5,000	6.1	n.a.	-	-	-	-	-	-	-	-	-
Rental housing	4,804	5.9	15.9	-	-	-	547	-	14.6	4,257	-	16.1
Sale housing	52,079	64.1	16.2	2,511	-	20.6	2,131	-	18.0	47,437	-	15.9
Associations/unions housing	18,995	23.4	18.1	420	-	22.0	7,816	-	18.2	10,759	-	17.8
Flood disaster, veterans, bereaved families, etc.	387	0.5	19.2	234	-	21.9	47	-	15.1	106	-	14.9
Total	81,265	100.0	16.6	3,165	4.2	20.9	10,541	13.8	17.9	62,559	82.0	16.2
Korea Housing Bank (KHB)												
Construction for sale	15,515	20.1	18.3	53	-	20.0	1,611	-	16.9	13,851	-	18.5
Purchase of sale house	29,874	38.8	17.8	899	-	21.5	14,673	-	16.4	14,302	-	19.1
Company housing	70	0.1	19.4	-	-	-	30	-	20.0	40	-	19.0
Construction of employees' housing	1,271	1.7	20.5	-	-	-	-	-	-	1,271	-	20.5
Associations/unions housing	604	0.8	19.2	21	-	23.0	181	-	18.8	402	-	19.2
Individual construction	5,863	7.6	26.0	5,607	-	26.2	256	-	21.5	-	-	-
Individual purchase	23,722	30.8	19.3	5,437	-	22.8	11,313	-	17.3	6,972	-	20.0
Housing remodeling	18	-	19.9	17	-	19.8	1	-	21.0	-	-	-
Site purchase	59	0.1	-	59	-	-	-	-	-	-	-	-
Total	76,996	100.0	19.1	12,093	15.7	24.2	28,065	36.5	16.9	36,838	47.8	19.1
NHF/KHB	1.06	-	0.87	0.26	-	0.86	0.38	-	1.06	1.70	-	0.85

Source: KHB, Statistics Yearbook of Banking Services, 1983.

Table 4.7: NATIONAL HOUSING FUND AND KOREA HOUSING BANK: LOANS BY RECIPIENT IN 1983

Recipient	No.	Amount (W)	% of total loan amount	Purpose
National Housing Fund (NHF)				
Local governments	34,328	202,096	40.3	Associations, sale & rental housing
Korea National Housing Corp.	35,582	250,688	50.1	Sale and rental housing
Agricultural/cooperative unions	5,000	10,560	2.1	Agricultural housing remodeling
Contractors	6,355	37,428	7.5	Sale and rental housing
Total	81,265	500,772	100.0	
Korea Housing Bank (KHB)				
Contractors	15,865	109,826	23.2	Construction and site development
Firms and companies	991	4,220	0.9	Company & employee housing
Associations	146	735	0.1	Association housing
Individuals	59,994	359,310	75.8	House purchase, construction, association remodeling and site purchase
Total	76,996	474,091	100.0	

Source: KHB, Statistics Yearbook of Banking Services, 1983.

4.22 Another issue for NHF is its large contribution to the consolidated budget deficit (CBD) of the Government, since its separation from KHB required it to be accounted for in the Government's overall budget. As a result of this concern, questions have been raised by the Government as to whether it should continue to maintain the NHF as a Government fund account. The problem exists not because NHF is operating at a loss, but because a significant portion of the funds for new housing loans are appropriately obtained as borrowings by the Government, since net new lending cannot be wholly financed by NHF's current revenues. All borrowings act to create a deficit for the Government on the overall account. This issue should be viewed primarily as an accounting problem and should not be the basis for determining whether NHF should exist separately from KHB. The issue, rather, needs to be resolved by determining what the role of the Government should be in the provision of housing and housing finance.

4.23 Although NHF was given a different mandate and strong resource mobilization instruments, its program has mirrored that of KHB. Instead of focusing on those who would not otherwise be able to acquire a house from commercial sources, NHF has followed policies which make its impact on the housing sector indistinguishable from the "market" institutions. The specific policies which have limited NHF's ability to differentiate its program from that of KHB are, among others, NHF's program of concentrating on first-time buyers of new units, of using size of unit as a proxy for income and of permitting lending only through public sector suppliers of housing. Because the Government has not given clear instructions on to how to translate social policy objectives for NHF, the institution has spread its resources thinly over many borrowers which makes it more difficult to address the lowest-income groups. A more clearly targeted role for NHF is required in order to permit the Government to reach families which truly need public housing and financing assistance.

C. Citizens National Bank (CNB)

4.24 The CNB was created in 1962 by the Citizens National Bank Act as a broad-based financial institution serving the needs of households and small businesses. Although CNB is a state-run bank, it has the form of a joint-stock corporation and it is possible that, in the process of financial liberalization, the Government might in future years sell back its 65% share of CNB stock to the public. The clientele served by CNB consists of the general public and small-scale industries not generally served by commercial banks. In terms of assets, CNB is 25% larger than KHB. Its sources and uses of funds in 1983 are illustrated in Table 4.8. Household loans represented 30% of total assets in 1983, but housing-related loans are only a small part of CNB's total portfolio. By the end of 1984, CNB was expected to have made W 23 billion of new housing loans and to have an outstanding portfolio of W 276 billion or less than 1% of total assets. Lending is directly related to contractual savings arrangements (mutual savings deposits represented about 77% of deposits in 1983). The nature of the loans made depends on the type of contracts. Eligibility and terms of loans made under the WAFD Scheme are regulated and identical to those offered by KHB. The housing loans made by CNB in other cases differ from those made by KHB in two important ways: they can be used for the purchase of houses more than five years old and their maturities are very short at less than five years.

Table 4.8: CNB SOURCES AND USES OF FUNDS, 1983
(W mln, %)

Sources			Uses		
Type	Amount	Composition	Type	Amount	Composition
Deposits	505,602	28.6	Loans for which deposits have been made in advance	623,209	35.8
Loan-linked deposits	410,489	23.2	Loans	902,451	51.0
Collection of Loans	732,310	41.4	Others	232,540	13.2
Others	119,799	6.8			
Total	1,768,200	100.0	Total	1,768,200	100.0

Source: CNB, Annual Report, 1983

4.25 In an environment of financial liberalization and increased market competition, CNB is likely to be KHB's most direct competitor for household savings. CNB has been very active in recent years in developing new consumer banking products such as credit cards. Given its diversified activities, CNB is moving steadily in the direction of universal banking. Its banking experience with households and small-scale loans means that CNB's active presence in housing finance would depend mostly on the pricing policies followed for mortgage lending. A continuation of low rates for housing would probably discourage CNB from expanding its housing finance activities on a significant scale.

D. National Agricultural Cooperative Federation (NACF)

4.26 The NACF operates as a deposit-taking institution and makes mortgage loans to its members who live mainly in rural areas. Its annual lending is about W 30 billion and its outstanding loans currently represent about 9% of the market. However, its role in the housing sector is expected to remain relatively small in absolute amount and to decline in relative importance, since the housing shortage in rural areas is considerably less than in urban areas and is found mostly in peri-urban areas. There is currently a quantitative balance between households and the number of units in the rural sector. While the quality of housing has improved over the past ten years in rural areas, it is still a problem and one can expect that the demand for housing finance in rural areas will be more for short-term improvement loans than for long-term mortgage loans. In addition, rural residents have traditionally been reluctant to borrow on a long-term basis for their housing needs and would rather improve their income potential through additional farm investments.

E. Insurance Companies

4.27 Due to the nature of their business, life insurance companies are an important source of long-term capital which matches the needs of the housing sector. There were six life insurance companies in Korea with total assets of W 4,883 billion at the end of 1984. Their role in housing financing has so far been very small and they have supplied less than 2% of outstanding housing mortgages as of end-1984. Their housing loans are extended to policyholders who intend to build or purchase housing that is less than five years old. Loans are made for maturities of 10 years or less and carry interest rates related to prevailing interest rate levels which are higher than KHB rates. Loan-to-value ratios are based on maximum monthly payments. Two types of loans are offered: ordinary amortizing loans with equal monthly payments, and monthly interest payments plus payments of 10% of the principal amount at the end of each year. To qualify, a borrower must have had a policy for at least five years.

4.28 By regulation, Korean life insurance companies cannot have more than 15% of their total assets in real estate. In the absence of appropriate mortgage-related securities, the life insurance companies have been investing directly in commercial real estate, and they are heavily invested in that sector. Their real estate holdings increased by 355% between 1980 and 1984, while their investments in securities and bonds increased by only 100%. The book value of their real estate portfolio is about W 625 billion. Under the Commercial Code they are expected to revalue their assets every five years, and it is estimated that these real estate assets will exceed W 1 trillion in 1985, bringing the real estate share to 20% of the total asset portfolio - well above regulated levels. Investment strategies have varied significantly among companies and the overall ratio before revaluation was 12.8% at the end of 1984. By comparison, the ratio of real estate holdings to assets of life insurance companies was 3.5% in the U.S., 6% in Japan and 9.2% in Germany. In France, insurance companies, which were nationalized after World War II, are expected to invest 30% of their portfolio in housing, and they own a substantial amount of rental housing stock.

4.29 In the immediate future, Korean life insurance companies are not likely to be very active in financing residential housing given their already large commercial real estate assets, but changing regulatory guidelines could improve their activities in the rental market. Beyond direct investment in housing, life insurance companies cannot be active in the sector in the absence of mortgage-related securities that would be sufficiently liquid and which would meet the fiduciary responsibilities of life insurance companies. However, in the longer term, life insurance companies have a legitimate role to play in increasing the depth of the housing finance market. The Korean insurance industry has experienced a remarkable growth during the last two decades and can be expected to continue to do so in the future.

F. Retirement Funds

4.30 Like life insurance companies, retirement funds are generating long-term capital which could finance long-term mortgages. However, until now

their role in the housing market has been extremely small. Until 1980 only a few of them were active in housing. In 1981, with the establishment of the NHF, several of the funds (Teachers' Pension Fund, Public Officials' Pension Fund and the Military Personnel Pension Fund) were financing housing in two ways. First, they provided a portion of their investment funds to NHF to be on-lent for new housing purposes. Second, they were lending directly to their members. Prior to 1972, some of the older funds had also assisted their members by financing the construction of a small number of low-income units (about 1,600) which were sold at cost. The eligibility conditions restricted use of funds to members with a minimum of 20 years of service. Since then the funds have been invested in rental housing stock to promote the welfare of low-income officials.

PART TWO: TOWARD A MORE EFFICIENT HOUSING FINANCE SYSTEM

V. REFORM OF HOUSING POLICY

A. Increasing Housing Supply

5.01 An effective reform of the housing finance system, based on an increasing role for market forces, should be supported by appropriate changes in housing policy. Although there is severe crowding and a shortage of units from the past, the output of new housing has failed to keep pace with even the new households, let alone make any progress in reducing the backlog. At present, there are about two million fewer dwellings than households, and new household formation is averaging about 300,000 per year compared with new construction of about 200,000 units per year. To keep up with new household formation and to eliminate the existing shortage, even by the end of this century, would require an annual production of more than 400,000 units, twice the present level. Both private and public sector developers have fallen short of the targets set in the Fifth Five-Year Economic and Social Development Plan (1982-86) as shown in Table 5.1. Thus, the most immediate and important challenge facing the Korean Government in the housing sector is to put in place policies which will stimulate the output of units for sale and for rent which are appropriate for a broad range of income groups.

Table 5.1: ACHIEVEMENT OF FIFTH PLAN TARGETS IN HOUSING PRODUCTION (1982-86)
(thousands of housing units)

	1982		1983		1984		1985		1986	Plan
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Total
Public sector	100	68	110	82	110	114	120	132	130	570
Private sector	170	123	170	144	180	108	180	95	190	890
Total	270	191	280	226	290	222	300	227	320	1,460

Source: MOC.

5.02 It is striking that, despite plans to the contrary, the public sector has exceeded the output of the private sector in three of the last five years. Table 5.1 shows that the deviation from the Plan is largely due to a rather large shortfall in private production and not to an increase in public output. This divergent performance is the result of demand as well as supply factors and raises basic questions concerning the inability of the private sector to increase housing production and the efficacy of present housing policies in promoting better housing conditions. On the demand side, the shortage of long-term mortgage finance is a significant factor in restraining buyers, particularly those of privately developed units, where only about 50%

of new units received a formal mortgage in 1984. This report suggests that the expansion of the housing finance system would strengthen effective demand among a broad range of income groups. Supply bottlenecks occur because of the shortage of serviced land for housing, taxation policies, and price control regulations, among other things. Given the decline of the private sector share in housing production, it would be appropriate for the Government to review those policies and programs which may be restraining private sector output.

5.03 The policy of directly controlling the selling prices of new privately developed apartments below known market levels served, in the period before the bond-bidding system, to create a windfall for the first purchaser. However, because it has undoubtedly reduced the output of new units, the longer-term equilibrium prices in the housing market may be higher as a result of this policy. The introduction of the Type II Housing Bonds to absorb a part of the gap between controlled and market prices was a positive step which can now be followed by abolition of the controls, without any adverse effect on buyers, since they are already paying market prices under the bond-bidding system, and with a positive effect on the supply of new dwellings (para. 2.29).

5.04 The sales pricing policy of units produced by public sector developers which establishes sales prices independent of market values prevailing in local markets should be reviewed. More flexibility should be given to public developers, primarily KNHC, to respond to varying conditions in local markets. A review of the pricing formulas should consider the windfalls on resales gained by first purchasers of new public units and whether this is an appropriate method to transfer subsidies to home buyers (para. 2.28).

B. Policy Directions

5.05 In order for specific recommendations to be successfully implemented, it is first necessary that policymakers clarify the role of the Government in the housing sector in general and in the housing finance system in particular. The key issue is the need to distinguish between social welfare goals and economic efficiency objectives in housing. The primary objective of public policy should be to encourage a responsive market to serve the majority of Korean households on a competitive basis. A second objective should be to consider to what extent housing policy should be utilized to pursue income redistribution and social policy objectives. To illustrate possible responses to these two objectives, the following four-part typology, focusing on the financial ability of households to participate in the housing market, could be considered:

> Group A (75th + percentile) 23/ includes the highest income households who are able to own with minimal resort to formal borrowing. This group is able to satisfy its housing desires largely on a

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23/ These income groupings are intended to be illustrative and not definitive.

"cash" basis with little term financing. Access to housing for this group is more a function of wealth than income because little or no formal financing is used.

Group B (50th - 75th percentile) includes households who are able to purchase housing but require, and can afford, market terms for long-term financing. This group would be the core clientele for the market-based housing finance system, along with some buyers from Group C who have more savings, want larger units or are unwilling to wait for Government-assisted financing. Although this group faces high housing prices and a bias in the output of new units toward larger sizes, they do have the income to make substantial monthly payments under the present system, but not necessarily the wealth for the large down payments required at present. Many households in this category may now be renters because they cannot obtain financing.

Group C (25th - 50th percentile) includes, at the lower end, households who will need some concessional financing to purchase even the smallest unit, and households, near the upper end, who can afford and will opt for the larger more readily available loans from the market system. This group corresponds to the target group proposed for NHF financing.

Group D (0 to 25th) includes households who are able to rent adequate housing without assistance and some who cannot afford even to rent socially defined "adequate" housing.

5.06 Housing policy and, in particular, its financing aspects should be differentiated to respond to the varying needs of these different income groups. Policies that focus on improving the efficiency of the housing finance system should be designed to address the housing requirements of Groups B, C and D, both directly, through reform of the quantity and terms of housing loans which improve access to home ownership, and indirectly, through improvements in the financing of rental accommodations which should help to increase the supply. Since Group A is already the best housed in Korea and has shown itself to be largely able to satisfy its housing needs without formal borrowing, it should not be a serious problem if some temporary restrictions, such as a maximum loan or dwelling size, had the effect of excluding this group from the housing finance system as long as there is a scarcity of resources. For Group D, which cannot reasonably expect to become home owners, housing policy should define the type of assistance (income supplements, food programs, rental vouchers, etc.) to most equitably assist this group; however, improving access to home ownership is not appropriate for this group.

5.07 Housing policy should clearly differentiate the role of public sector agencies (primarily KNHC and NHF) from their private sector counterparts. In determining specific activites and practices of public agencies, a distinction should be made between economic efficiency goals and distributional objectives. An explicit identification of the benefits and costs of the public agencies in the housing sector should be attempted.

5.08 The content of housing policy should be broadened to promote the financing of all activities in the housing sector and not simply home ownership for first-time buyers. As long as a quantitative balance between housing units and households has not been reached, the Government should encourage home improvement and expansion over demolition through its housing finance institutions by providing more loans for these purposes. In addition, lending for older, existing units should be permitted because it would increase the number of smaller, more affordable units available to lower-income households. Credit and investment incentives should be expanded to promote the construction of rental housing by the private sector. Public construction and ownership of rental housing should be discouraged, since the financial and management problems associated with such programs elsewhere have been serious. Moreover, the volume of public rental housing is likely to be too small to make any significant difference in the overall market and may ultimately lead to large public expenditures.

VI. STRENGTHENING OF THE MARKET-BASED HOUSING FINANCE SYSTEM

A. A Segregated vs. An Integrated Housing Finance System

6.01 The present housing finance system was put in place in 1967, based on specialized institutions, to serve a much smaller housing market. Given the present size and scope of the housing market, a system which can efficiently intermediate between savers and those deserving loans to purchase houses is now needed. There are two basic questions which must be answered to determine the nature of the future housing finance system in a progressively more liberalized financial sector. The first concerns the degree of insulation between housing finance and the rest of the financial system, and the second is related to the extent to which the system will be deregulated to encourage additional non-specialized lenders and new instruments. At one extreme of the segregation-integration continuum, there could be a specialized housing finance system effectively insulated from the capital markets. This would imply continued regulation of housing finance institutions to ensure that they have access to low-cost funds which they can, in turn, relend to prospective homeowners at relatively low cost. This would also mean that the housing finance system would face a chronic shortage of funds, since the demand for housing finance at the regulated price would exceed the supply. Non-price rationing devices, such a multiple eligibility criteria and low loan-to-value ratios would remain necessary. Moreover, since the existing institutions within the industry would be shielded from economic competition, they would not have any particular incentive to become more efficient or effective and, more importantly, innovative.

6.02 A fully segregated housing finance system may be workable in a period of macroeconomic stability with low and stable inflation and interest rates. To the borrower, the cost is much greater than the interest he pays on a formal mortgage loan, if he is fortunate enough to get one, because additional funds have to be raised, at even higher costs, to supplement what will normally be a relatively small mortgage. The housing finance institutions, being effectively insulated from competition, may be tempted to become comfortable and incur inefficiency costs. Ensuring the perpetuation of such

an insulated system usually calls for a large regulatory infrastructure, constant Government intervention and direct Government assistance in periods of instability.

6.03 The other extreme of this continuum of strategies is the complete integration of housing finance into the financial and capital markets. This usually entails a rise in the interest rates for mortgages to levels paid by other potential users, in order to provide the amount of resources that borrowers demand and which suppliers would be willing to provide voluntarily. It involves greater competition among suppliers, and usually leads to more innovation as lenders look for instruments more responsive to the market place. To the borrower, it means that he can normally have as much mortgage credit as he wants, provided he is willing to pay the price and suppliers are willing to take the risks of lending to him. On the supply side, there are likely to be more players and many more instruments, packaged differently and priced accordingly, usually with reductions in the costs of providing services and with less direct intervention from the Government.

6.04 The second issue of whether institutions should be specialized is a different matter from the integration question, but in practice almost all segregated systems have fully specialized lenders. If the choice is made to gradually integrate housing finance with the rest of the financial system, which is the basis for many of this report's recommendations, then both specialized and universal-banking type institutions could be making mortgage loans in the future.

B. Interest Rate Policies

6.05 The central housing finance issue today is the pricing of financial services, i.e., how to set interest rates for mobilizing resources and for mortgage lending. Such issues must be resolved within the context of interest rate policies for the total financial system, which are undergoing a process of gradual liberalization and easing of government regulation. For housing finance, the primary impact will be on the KHB, which is expected to continue to be the principal housing finance institution over the foreseeable future. Thus, interest rate policies will be the key to ensuring adequate mobilization of resources for the housing sector, efficient allocation of the resources raised, and to KHB remaining a sound financial institution operating without government subsidies.

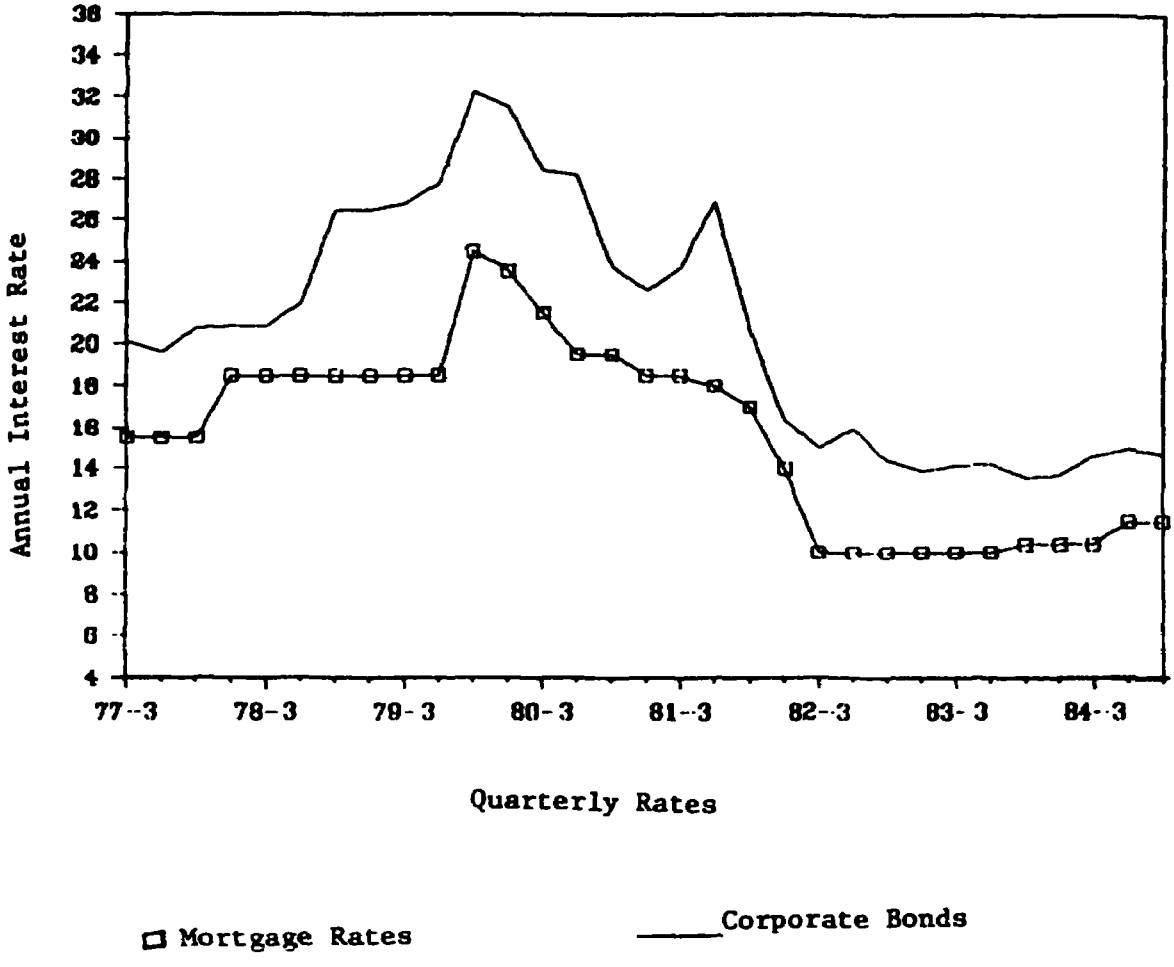
6.06 There is substantial evidence that mortgage rates have been too low in Korea. As noted earlier, the housing finance system is not raising deposits in sufficient quantity to meet loan demand, because deposit rates have not been high enough. There is little opportunity to raise deposit rates further without increasing mortgage rates, since KHB's spread is already very small. In addition, the system of administered interest rates for the entire financial system still produces a term structure of interest rates for lending, which neither differentiates between commercial loan maturities of two years and mortgage maturities of twenty years, nor takes risk and collateral considerations into account in loan pricing. Furthermore, in more developed and fully integrated financial markets, such as the U.S., U.K. and Denmark, the interest rate on mortgage loans is typically marginally higher

than the cost of long-term corporate bonds reflecting the higher costs of denomination intermediation and credit information for residential mortgages. The present Korean situation of lower interest rates on mortgages than on corporate bonds may reflect the relatively small size of the corporate bond market and the weak debt picture of many corporations. As financial sector liberalization proceeds, it would be normal to expect residential mortgage bonds to be priced near the top of the interest rate structure (see Figure 6.1). Moreover, countries with competitive and integrated financial markets and flexible interest rates do not suffer from shortages of mortgage funds such as have occurred in Korea in the past.

6.07 To ensure the viability of the housing finance institutions, interest rates in the housing sector should be gradually deregulated along with further liberalization of the financial system to bring them to market levels, and this deregulation should proceed simultaneously for both deposit and mortgage rates to ensure an appropriate spread for KHB and other market lenders of housing finance. One of the ambiguities of the current liberalization is that KHB has been treated on the liability side like all other deposit banks, which have been permitted to raise deposit rates more in line with market levels, while on the lending side KHB is considerably more restricted both in its choice of assets and on the pricing of its mortgages. To illustrate, KHB must pay the new deposit rate of 12% for six months or more, which has been permitted since April 1985 for first-tier institutions, in order to compete with other banks for deposits, but KHB mortgage rates have been fixed at a maximum of 11.5%. Although KHB raises other deposit funds at lower costs through contractual savings schemes and other sources so that it can operate in this situation with a positive spread (albeit low), lending rates at less than the cost of funds will seriously jeopardize the financial viability of KHB in the future. During this transitional period of financial liberalization, it is recommended that within the regulated band for lending (currently 10.0% - 13.5%), KHB be permitted to price its mortgages up to the maximum rate (i.e. 13.5% at present) to reflect the longer-term and riskier nature of its types of loans and to ensure an adequate spread on its operations. To further increase the effective yield on its mortgage instruments, or to price some new types of mortgages higher, during the period of regulated interest rates, KHB could charge the home buyers service fees to cover loan origination costs.

6.08 Regarding KHB's outstanding mortgage portfolio for which the contracts permit a variable interest rate, the interest rate on mortgage contracts should be adjusted both upward and downward over their life. If interest rate liberalization brings higher interest rates, KHB can avoid exposure to major interest rate risk by adjusting interest rates on mortgage contracts upward. The 1984 adjustment of mortgage interest rates on outstanding contracts from 10% to 11.5%, which is the first time that a known adjustment has occurred in an upward direction, is a step in the right direction and should continue if interest rates on new mortgages rise further.

FIGURE 6.1
KHB Mortgage and Corporate Bond Rates, 1977-1985.



6.09 The impact of allowing formal mortgage rates to increase, when combined with larger loans from an expanded system, may even reduce the home buyer's actual total cost of financing housing, since there would be less reliance on higher cost informal sources of funds. The results of assumed higher mortgage rates and larger loans to home buyers are presented in Table 6.1 and are compared with typical financing terms under the present system. The cost of financing a home purchase is shown as a monthly payment factor, expressed as a percentage of the house price. Five typical borrowers under the present system and seven hypothetical borrowers under the proposed system are included. In each example, the purchase is financed with a combination of loans and "own resources." The loans classified as "formal" under the present system are priced at the prevailing rate for KHB of 11.5% p.a. for 20 years, and "informal" rates are priced at the curb market rate of 22% and assumed to be amortized in six years. The remaining portion of the purchase price, "own resources", which may be savings or sale of an asset, is assumed to have no financial cost. These own resources are estimated to make up 30%, 40% and 50% of the total housing price in the various scenarios. Under the proposed system, scenarios of interest rates ranging from 15-20% p.a. are assumed, along with the higher loan-to-value ratios.

6.10 The analysis in Table 6.1 indicates that the direct monthly financial cost for borrowers who match the financing profile described would decrease under the proposed system. Comparing borrowers with the same level of down payment, present "A" would be better off choosing either "F" or "G" under the new system. "B", with savings of 40%, could move to "H" and reduce costs. Similarly "C" could adopt "I" or "J" and "D" could adopt "I" under the proposed system to improve their position. "C" would not find it advantageous to move to "K", but the 20% interest rate used to compute example "K" represents the most pessimistic assumption. "L" illustrates the power of longer maturities, where even borrowing 70% of the value of a unit at 20% interest is better than taking a present KHB loan and raising an equal amount on the curb market ("A"). These examples illustrate that the present system of very small loans, even when combined with substantial savings with no financial cost, leave the cost of purchasing a house high in almost all cases compared to scenarios where larger loans are provided at higher interest rates because of the reduced reliance on high-cost, informal sources of funds.

Table 6.1 COST OF FINANCING A HOUSING UNIT UNDER ALTERNATIVE ASSUMPTIONS OF HOUSING FINANCE PROVIDED

	Formal Loans (for 20 years)		Informal Loans (for 6 years)		Savings		Monthly cost (% of unit price)
	(share)	(rate)	(share)	(rate)	(share)	(rate)	
Present System							
A	35.0	11.5	35.0	22.0	30.0	0.0	1.25
B	35.0	11.5	25.0	22.0	40.0	0.0	1.00
C	35.0	11.5	15.0	22.0	50.0	0.0	0.75
D	40.0	11.5	10.0	22.0	50.0	0.0	0.68
E	50.0	11.5	20.0	22.0	30.0	0.0	1.03
Proposed System							
F	50.0	15.0	20.0	22.0	30.0	0.0	1.16
G	60.0	17.0	10.0	22.0	30.0	0.0	1.13
H	60.0	17.0	0.0	0.0	40.0	0.0	0.88
I	50.0	15.0	0.0	0.0	50.0	0.0	0.66
J	50.0	17.0	0.0	0.0	50.0	0.0	0.73
K	50.0	20.0	0.0	0.0	50.0	0.0	0.85
L	70.0	20.0	0.0	0.0	30.0	0.0	1.19

Note: Share is expressed as a percent of the housing unit price.
Rate is interest rate per annum.

6.11 The present practice of adjusting deposit rates should be continued so that KHB's spreads are not eroded in a situation of declining interest rates. More competition for deposits under financial liberalization will require greater flexibility for KHB in setting deposit rates by maturity in order to attract an adequate level of savings for housing finance. The application of the recent maturity-differentiated deposit rates on KHB accounts is appropriate, and as financial liberalization proceeds, KHB should be given maximum flexibility in setting deposit interest rates to help it attract a sufficient quantity of household funds.

C. Market Mortgage Instruments

6.12 KHB's effectiveness in the housing sector can be increased by improving its lending instruments, primarily by offering borrowers more options in various combinations according to needs, including:

(a) higher loan-to-value ratios;

(b) shorter maturities;

(c) loans for any age of dwelling;

(d) more loans for renovation and expansion of existing houses; and

(e) use of graduated payment mortgages.

KHB should differentiate the prices of mortgages according to the various options provided and default risks associated with each type of loan.

6.13 The provision of larger housing loans will be dependent upon a greater quantity of funds available for the housing finance system, implying that loan-to-value ratios should be raised gradually in line with the overall growth of the housing finance system. Establishing a schedule of loan-to-value ratios will eliminate the need for the current system of different fixed absolute loan ceilings by house size.

6.14 Varying the maturities of loans from the present single 20-year instrument could have several advantages. Shorter maturities could be attractive for the households which have been borrowing from KHB without experiencing payments-to-income constraints. Such borrowers might not want to face long maturities given the new environment of price stability and the high real interest rates carried by mortgage loans. An additional reason for experimenting with different maturities is that the absence of interest deductions from income taxes in Korea may mean that borrowers do not favor long maturities with up-front loading of interest repayments. Finally, somewhat shorter maturities facilitate the recycling of funds in the sector and raise the level of internal resource generation for housing finance institutions.

6.15 The other changes proposed will also increase KHB's responsiveness to borrowers. An important innovation, which can be adopted in the short run, is to eliminate the present restrictions on the age of the dwelling and simply make loans on the basis of a satisfactory appraisal which determines the market value of the house. Encouraging people to expand and renovate are efficient ways of improving housing conditions and should be supported by KHB with larger lending programs. Graduated payment mortgages may also be popular and can be safe for KHB as long as the starting rates fully cover interest charges. For KHB there is no reason to favor first-time buyers in terms of maximizing the effect of the financing system on housing output. A rule of holding only one KHB mortgage at a time may be retained as a rationing device as long as there is a shortage of mortgage funds to lend.

6.16 The adjustable rate mortgage contracts which KHB offers should continue to be provided for new customers, and in order to permit smooth implementation of the adjustments, several explicit features could be incorporated in the contracts. For one, the mortgage contracts could identify the basis for adjustment which, under present regulations, might be linked to the cost of funds and administered interest rates. The KHB may also wish to study whether the acceptability of fully and quickly adjusting mortgages could be increased by introducing a provision to the contracts which limits the maximum rate of interest adjustment or the speed by which the interest rate could be adjusted over a particular period of time by establishing "caps". In certain cases, when an increased interest rate would cause hardship to customers, it should be possible to keep monthly payments at the same level and extend the term for repayment.

D. Size of the Housing Finance System

6.17 Estimating the future demand for mortgages or the size of the formal housing finance system is not an easy task in view of the fundamental changes taking place in the financial sector. The demand for housing finance will depend both upon new housing and transactions in existing units. Policy questions which have not been resolved, such as the extent to which housing finance will be integrated within the overall financial sector, and technical details of how much each borrower will be loaned, all will have a major impact on the size of the system. This section forecasts upper and lower limits for the system and suggests how the proposed reforms will influence the future volume of mortgage lending in Korea.

6.18 In 1983 and 1984, the formal housing finance system provided loans for about 75% of the new units sold with an average loan-to-value (LTV) ratio of 30% for a total volume of annual new lending equivalent to about 22.5% of the value of all new units. Table 6.2 shows the results of an exercise which forecasts the future size of the formal housing finance system and of KHB. The minimum growth scenario, A, assumes no increase in the share of units receiving mortgages (75%), or the average LTV (30%). However, the real value of new output is assumed to grow at 5.0% p.a. and the number of units produced at 3.5% p.a. Lending from NHF is held constant in all scenarios, and KHB's lending is forecast to fill the gap. In scenario A, the formal system grows 1.5 times over the next five years and KHB 2.1 times, neither very ambitious targets. If the average loan were to increase to 35% of the value of the unit, scenario B, KHB would grow to 2.6 times its present value and the overall system to 1.7 times. If loans increased to cover 50% of the value of houses purchased, as recommended in this report, KHB's size would grow by a multiple of 4.3 and the entire formal mortgage system by 2.4 times. If the assets of the entire financial system continue to increase as they did from 1975 to 1984 (see Table 3.1), this would still leave housing finance with a modest share of about 6% and KHB with about 4%. Changes in the average value of units or the growth of new output could affect the total demand for mortgages, but the provision of loans to three-quarters of new construction could also be adjusted downward to accommodate a rise in other factors. This calculation does not include any financing for the sale of existing units. However, the small present size of the housing finance system and the projections of growth in the total formal financing system over the next five years leave room for exploring such new types of lending without threatening serious disruption to the financial sector.

Table 6.2: ESTIMATED SIZE OF THE HOUSING FINANCE SYSTEM
(Annual volume, billion won, 1984 prices)

	Actual 1983/84 (2-year average)	Projections for 1989		
		A (LTV=30%)	B (LTV=35%)	C (LTV=50%)
All formal lending for housing	1,044	1,528	1,782	2,546
: of which KHB lending	(410)	(842)	(1,069)	(1,752)
Informal finance and equity	3,434	5,262	5,008	4,244
Investment in new units	4,478	6,790	6,790	6,790

6.19 The upper and lower bounds for mortgage demand suggested above should be viewed as orders of magnitude as to how the system may expand. The KHB's Survey of Borrowers asked buyers about their financing strategy, and the analysis did not suggest an explosive demand. Greater demand might occur if mortgages were priced considerably below the market or if real rates of appreciation on real estate were extremely high, but neither of these conditions is likely to prevail under the current economic management policies in Korea. The reforms proposed for the housing finance system are likely to make any direct control of its size unnecessary. If additional resources are raised at market-determined interest rates, any higher cost would have to be passed on to the borrowers, thus automatically restraining demand.

E. Future Sources of Funds for an Expanded Housing Finance System

6.20 The expected increase in demand for housing, combined with new uses and larger sizes of housing loans, will require a greater quantity of resources. The avenues for funds mobilization will be largely a function of the extent to which KHB, as the primary market housing finance institution, will be permitted to compete with other deposit-taking financial institutions for household deposits, which should remain the principal source of funds for market housing finance. The further development of the financial system towards market pricing is expected to channel informal sources of funds through the formal institutions. KHB should be in a strong position to attract a reasonable share of these savings assuming that it is permitted to pay prevailing market prices for deposits.

6.21 During the transitional period toward financial liberalization, KHB can continue to use the incentives offered in its contractual savings schemes to mobilize resources for the sector. These savings schemes, which link the eligibility for a loan to the prospective borrower having made deposits over a period of time, have several appealing features. For one, a record of payment is established over a reasonably long period of time which gives an indication of the credit risk of the potential borrower. Contractual savings schemes also offer a process whereby the participating institutions can improve their

prediction of the demand for loans in a particular time period. Because deposits in these schemes receive somewhat less than market interest rates, the schemes have the ability to generate resources at a relatively low cost. However, they can create a funding problem for lending institutions because the contract requires that a loan be made after a certain saving period. The contract may be difficult to honor for reasons not related to the contract schemes, such as a general shortage of loanable funds or a lack of eligible houses for mortgage loans, causing savers to withdraw their deposits. Furthermore, prospective borrowers lock in specific loan amounts at the time the contract is entered into, although it is not possible to predict housing costs several years in advance with accuracy, implying there is no assurance up front that loan amounts will be sufficient to permit house purchases. As the housing finance system moves toward market pricing, contractual savings schemes will not remain attractive to savers because there will be no incentive in terms of a below-market mortgage at the end of the contract. Therefore, over the longer term this source of funds would be expected to disappear.

6.22 Under a more market-based financial system, KHB may also wish to explore the option of floating housing bonds backed by the security of its mortgages to raise additional funds for housing finance. KHB floated bonds previously but abandoned this avenue during the mid-seventies because of its inability to offer competitive yields while maintaining positive spreads with the assigned mortgage interest rates. By floating mortgage-backed housing bonds, KHB may be able to tap institutional investors, such as insurance companies and pension funds which might not otherwise wish to invest directly in real estate, if it pays market interest rates and can adjust its mortgage interest rates to maintain a positive spread on operations. The present policy objective of bringing the financial markets to fully competitive pricing is encouraging the development of long-term capital sources, creating realistic opportunities for the emergence of a long-term mortgage bond market.

F. Secondary Mortgage Market

6.23 At present, the market for housing finance is served for the most part by KHB with very limited lending provided by a few other institutions such as CNB. Over the longer term, it would be highly desirable to facilitate the entry of a greater variety of long-term investors with their own diversified financial needs and objectives. This would increase efficiency in various ways: greater competition, more innovation and greater financial depth in this particular sector of the market. The development of a secondary market facility is needed to improve the housing finance system. With the progressive development of the financial sector, and in particular interest rate liberalization, a secondary market facility would also play an important role in addressing the interest rate and liquidity risks faced by investors in long-term housing loans (including KHB).

6.24 Since the implementation of a secondary market facility could take several years to prepare and implement, it would be very desirable to initiate preliminary studies as early as possible. A variety of technical issues are involved such as: pricing mechanisms and supervision, legal characteristics

of the underlying guarantees and evaluation of the possible deficiencies of present mortgage instruments, taxation and accounting regulations for participants, rules for accreditation and access to the secondary market facility.

G. Impact of the Proposed Changes

6.25 The impact of implementing the recommendations for a market-based housing finance system would be to expand the size of the formal housing finance system, to fund a broader range of investments in housing, and to target services more effectively to an increasingly differential clientele. The expanded size of the mortgage finance system will be necessary to compensate for an expected decline in informal sources, due to financial sector reform, and will be facilitated by the application of market pricing to mortgage loans. When the housing finance system offers more flexibility in the types of loans and an increase in the range of investments eligible for mortgage financing, the impact of the financing system on the evolution of housing conditions would be much greater than at present. The availability of larger loans requiring smaller down payments and of these new features will also enable the housing finance system to serve a clientele with a greater proportion of medium- and lower-income borrowers.

6.26 It is the market-based side of housing finance which is expected to grow, and KHB will play a leading role. Although expanding both the instruments and the activities financed at the same time, KHB's management should be able to maintain the growth and financial viability of the institution if they are free to take decisions on mobilization and lending in response to the demand for mortgage finance. A clear and unambiguous responsibility for building an efficient market-based housing finance system in Korea should be assigned to KHB.

6.27 From the viewpoint of home buyers, there will be an increased availability of formal household finance, which could even result in a lower average cost of borrowing for those who previously relied on informal sources. More flexibility in the types and purposes of loans available would also mean that more households can improve their housing situations through the financing system. If, as expected, the chonsei system declines, renters will also have the opportunity to make better use of their savings and will have more alternatives in their choice of rental accommodations.

6.28 The proposed changes to the housing finance system are consistent with the Government's objectives to strengthen the nontraded sectors as a "second engine of growth" and to bring the benefits of more efficient financial intermediation to more of the economy by liberalizing the financial system. These benefits would be primarily realized by more of the financing for housing flowing through the formal system, rather than through the informal credit markets, with lower overall intermediation costs in comparison to a system of transactions among private parties. The current volume of informal financial claims related to housing suggests an ample opportunity to channel these resources through the formal system without displacing funds from other sectors. The demand for mortgage finance will undoubtedly increase, but the rate of growth will be automatically restrained by the rising price required to mobilize resources from savers. At the same time,

improved allocation of savings between sectors and a shift in the household savings portfolio toward more financial instruments are expected. Expanded formal financing would also make a reduction in direct Government intervention in the housing sector possible.

VII. THE FINANCING OF HOUSING FOR LOWER-INCOME BUYERS

A. A Separate Role for the National Housing Fund (NHF)

7.01 The 1981 separation of NHF from KHB was a positive step in improving housing finance policies and the operation of the involved public institutions, because it offered the opportunity to make explicit the public role in assisting low-income house purchasers. Although reintegration of NHF with KHB has been considered as a possible response to NHF's effect on the Government budget deficit, the current arrangement of separate entities should be maintained over the medium term to permit clear and distinctive objectives to be assigned to NHF and KHB. While much of the motivation in 1981 was to segregate the two on the basis of sources of funds, it was also acknowledged that it would be desirable for each to serve a different clientele. The fund mobilization side of the separation was successful in making it easier to direct public funds to NHF. On the lending side very little has changed, largely because there has never been a comprehensive policy statement on housing finance acknowledging the dual nature of the Government's responsibilities, which include the promotion of social welfare objectives as well as the encouragement of well-functioning economic markets to supply and allocate housing services. The NHF's primary role in the medium term should be defined in terms of providing assistance for house purchases to those households which the Government wishes to support and who have difficulty affording the market terms (focussed on Group C). Over the longer term, as the market-based housing finance system expands, the Government may wish to let the market share of NHF decline or even phase out its operation.

B. Targetting the Beneficiaries of NHF

7.02 In order to establish a distinct role for NHF, the intended beneficiaries of NHF should be clearly identified in advance and procedures should be put in place to see that they are the recipients of NHF assistance. The present system of screening applicants for public housing by assuming that the size of a housing unit will determine the income of an interested buyer may not be an effective way to select lower-income borrowers. In order to increase NHF's impact on equity, it is suggested that the beneficiaries of NHF housing loans be families up to the 50th percentile of the urban income distribution, corresponding approximately to Group C which now consists primarily of renters. Since income levels are recommended as the determinant for allocating NHF housing loans, they could be verified for salaried workers by confirming the income directly with the employer, or for self-employed workers by requesting a copy of the previous year's tax return.

C. Sources of Funds for Future Operations

7.03 The most important source of funds for NHF's operations is national housing bonds. As discussed previously (para. 4.13), Type I housing bonds are low-yield, compulsory purchase bonds for those engaged mainly in construction and real estate transactions. In this sense, these bonds are a tax on those who are benefitting significantly from housing and construction activities which is used to fund a transfer to the public housing program. Revenues from the sale of Type I housing bonds should continue to be earmarked as a source of funds for NHF's operations. However, because their issuance is highly dependent on the business cycle and general economic conditions and thus cannot be expanded further as a source of funds except as these activities grow, this source of revenue is not expected to be sufficient to fully sustain the operations of NHF in the future.

7.04 If price controls on privately-built apartments are discontinued because of their negative effect on housing supply, Type II housing bonds will no longer serve any useful purpose. The prior rationale for controlling prices on private apartments was to make them cheaper to buyers, but the introduction of Type II housing bonds has been to move toward market prices from the purchasers' point of view. In this circumstance, it is doubtful what benefit comes from controlling prices which private developers can receive, but it is clear that this has reduced their incentive to construct housing units in areas subject to these price controls. Even if price controls were retained on private sector apartments, the quantity of Type II housing bonds sold is likely to decrease in the future. If the Government keeps prices low relative to market values on certain private sector apartments, the private sector is not likely to supply many units because profits will be squeezed and thus fewer bonds will be sold. If the Government sets controlled prices closer to market values, then the number of bonds buyers willing to purchase would decrease due to the decreased gap between the controlled price and the market price. Thus, Type II housing bonds are not a sustainable source of funds for NHF. Since first-time buyers of some privately-built apartments are now paying almost full market prices under the bond-bidding system, as subsequent purchasers always have, it seems likely that the supply expansion benefits of removing price controls will outweigh the use of this instrument for funding NHF.

7.05 To supplement the Type I housing bonds as a source of funds for NHF, contractual savings schemes can be continued for NHF's operations, but the long-term liquidity implications are linked to NHF's ability to mobilize sufficient resources to meet the contracts when due. NHF is not a deposit-taking entity and thus, in order to attract depositors, it must require prospective purchasers of houses financed under its programs to participate in a contractual savings scheme.

7.06 The use of the various national pension funds for the provision of housing finance by the NHF is in keeping with the broad aim of the funds, which is to provide long-term financial security to contributors, and housing is an appropriate form of security and savings. Therefore, if pension fund resources continue to be directed to NHF, the interest rate paid for the use

of these funds should be not less than that paid by alternative users. In addition, pension funds should be utilized only when needed, since this is a higher-cost source of funds for NHF.

D. Terms and Types of Loans

7.07 If NHF continues to rely primarily on public sources of funds with explicit prices, such as housing bonds, the minimum NHF lending rate should fully cover the cost of funds and any administrative expenses incurred, so that NHF can be operated on a sound financial basis without direct Government transfers. It is possible that this pricing formula would permit NHF mortgages to be priced lower than regular market loans, thereby providing an advantage to its lower-income borrowers.

7.08 While the objective of NHF should be to assist lower-income home buyers, the terms of its loans should not be so attractive that those who can afford to pay market terms dominate the demand for NHF funds. In addition to the recommended maximum income target of the 50th percentile of the urban income distribution, it will be important to set eligible house sizes and loan-to-value ratios at levels that will attract mainly lower-income households. The present eligible house size of 25.7 py may have been appropriate for the more limited housing finance system of the past, but 25.7 py is well above the average house size of about 20 py for the existing stock of dwellings and not much different from the eligible house size of 30 py for KHB loans. The maximum eligible house size for NHF loans should therefore be reduced to the average size of the housing stock, about 20 py, which is affordable to families at about the 50th percentile of the urban income distribution. To "taper" the benefits of NHF's programs further, a sliding scale of loan-to-value ratios, from, say, 50% for the largest eligible house size to 70-80% for smaller houses, should be introduced to increase NHF's impact on the lowest-income buyers. By establishing loan-to-value ratios, the current system of specific ceilings for loan amounts by house size will not be necessary.

7.09 In addition to the above suggestions, the graduated payment feature (GPM) should be continued but offered as an option to the borrower rather than as a mandatory feature. There are likely to be buyers who prefer the more rapid amortization of principal under a conventional level-payment plan. In addition, the mortgages should continue to be issued as adjustable rate instruments to help ensure that NHF will be operated on a sound financial basis. In addition to the 20-year maturity currently offered, NHF may wish to provide even longer maturities of 25 or 30 years to help improve the affordability of smaller houses for its lower-income clientele.

7.10 Since NHF's primary goal will be that of assisting lower-income households to become home owners, it should maximize the options offered to its clientele. In addition to providing housing finance for newly constructed units by public sector developers, NHF should provide housing finance to eligible households for purchase of existing units or for new units of eligible house size produced by private sector developers. It is likely that existing small units are less expensive than newly constructed units of similar characteristics, and thus more affordable to lower-income buyers. For

NHF, the first-time buyer rule should be retained because it increases the chances of serving lower-income buyers.

7.11 Since the vast majority of lower-income urban residents in Korea are renters, the NHF should develop a mechanism to assist the private sector directly to improve the housing status of lower-income renters. NHF should experiment with offering long-term financing to private parties for the construction and operation of eligible size apartments for permanent rental. These loans should be priced at market interest rates for loans of similar risk and maturity. As a protective measure, if the rental units are converted to sale or other uses, NHF could require the borrower to repay the loan in full at that time. It is expected that NHF could, in addition to its role as a financing entity, help stimulate the formal rental market in Korea.

E. Impact of the Proposed Changes

7.12 The main changes recommended in this report are directed to expanding the market-based system of housing finance because most Koreans will benefit by having access to larger formal housing loans at market prices. There is, however, an important residual role left to play in assisting those families who are almost able to afford a house. The impact of the proposed recommendations is to improve NHF's effectiveness in carrying out the Government's objectives in this respect.

7.13 NHF will achieve increased impact mainly through changes in its terms and conditions, making them advantageous compared to market lending. If the recipients are better targetted, in the sense that they conform to the Government's explicit social policy objective, the effectivenss of public policy will also be enhanced. The terms of NHF lending are recommended to be set at a level which fully covers the financial cost of the sources from which they are drawn. However, since prices on the primary mobilization instruments are not determined in a free market, there can be an advantage to the borrower which does not require direct budgetary outlays from the Government. The recommended higher loan-to-value ratios for the smaliest units, while remaining within the debt-carrying capacity of the household, would also have the effect of maximizing benefit for the lowest-income buyers who presently have the most difficulty in entering the market.

7.14 Several new or modified restrictions are proposed to increase the ability of NHF to reach the intended clientele. The income restriction at the 50th percentile should be a maximum level in terms of a direct social program. The presumably lower interest rates in the future from NHF than from KHB will be offset by the other restrictions on NHF borrowers and the lowest KHB borrower. The maximum size for an NHF-financed unit is suggested to be set at the average of the existing stock of houses which is about 20 py at this time. Along with a maximum house value and the tapered loan-to-value regulation, these restrictions may exclude some previous NHF borrowers but will increase the relative benefits to those still eligible. Opening up the possibility of purchasing an existing unit, or a new privately developed unit which conforms, will also increase the supply and may even reduce the cost of housing for the lowest-income groups.

7.15 Although there is no precise way to establish how large the NHF should be, there are some principles which provide guidance. The NHF has not carried out its business in a way which is differentiated from KHB. The NHF has been indiscriminately lending to all income levels for housing sizes not significantly different from KHB's, in part because it was not offering terms measurably better than KHB's. The central theme of this study is that a market-based housing finance system can and should serve most Koreans. The remaining role for NHF is to provide a limited level of assistance or to implicitly subsidize those who are almost able to purchase a home with their own resources.

7.16 The cumulative effect of the proposals for NHF made in this report would be to exclude higher-income buyers from purchasing larger size units with NHF resources because they can afford market rates. While the effect will be to reduce demand for this facility, some other changes proposed, such as lending for existing units, and for new privately developed units, higher loan-to-value ratios for smaller units and rental construction, should all increase the demand for and the effectiveness of NHF's lending. In accordance with Korea's objective of financial sector liberalization and because lower-income households can be served effectively, there is no need to expand the market share of NHF. In the short run, NHF may remain as large as KHB, but it will be economically efficient and equitable to encourage the expansion of the housing finance system on the market side.